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ABSTRACT

Although analogous and vague definitions of school climate may help in determining whether low-achieving students are experiencing a more positive or negative school climate, more clarity is needed to render the climate construct more observable, measurable, and malleable. Tagiuri conceptualizes climate as the total environmental quality within an organization and suggests that environment consists of four dimensions: ecology, milieu, culture, and social system. Attempts to define school climate in terms of ecology (building characteristics, size, and finances) and milieu variables (teacher and student characteristics) have shown low or inconsistent relationships with student outcomes. Research suggests that variables within the school culture and social system dimensions do influence student outcomes. The second section of this book discusses Tagiuri's culture and social system dimensions and their relationship to academic and other desirable outcomes for low achievers. Policies and practices of academically effective schools are contrasted with those of less effective schools. The third section describes restructuring, or fundamental school change, as an approach to improving school climate to benefit low achievers. Options discussed are limited to decentralized authority and shared decision making, new professional roles and relationships, accountability systems, curriculum modifications, and school-community partnerships. Finally, seven sample restructuring programs are described. (387 references) (MLH)

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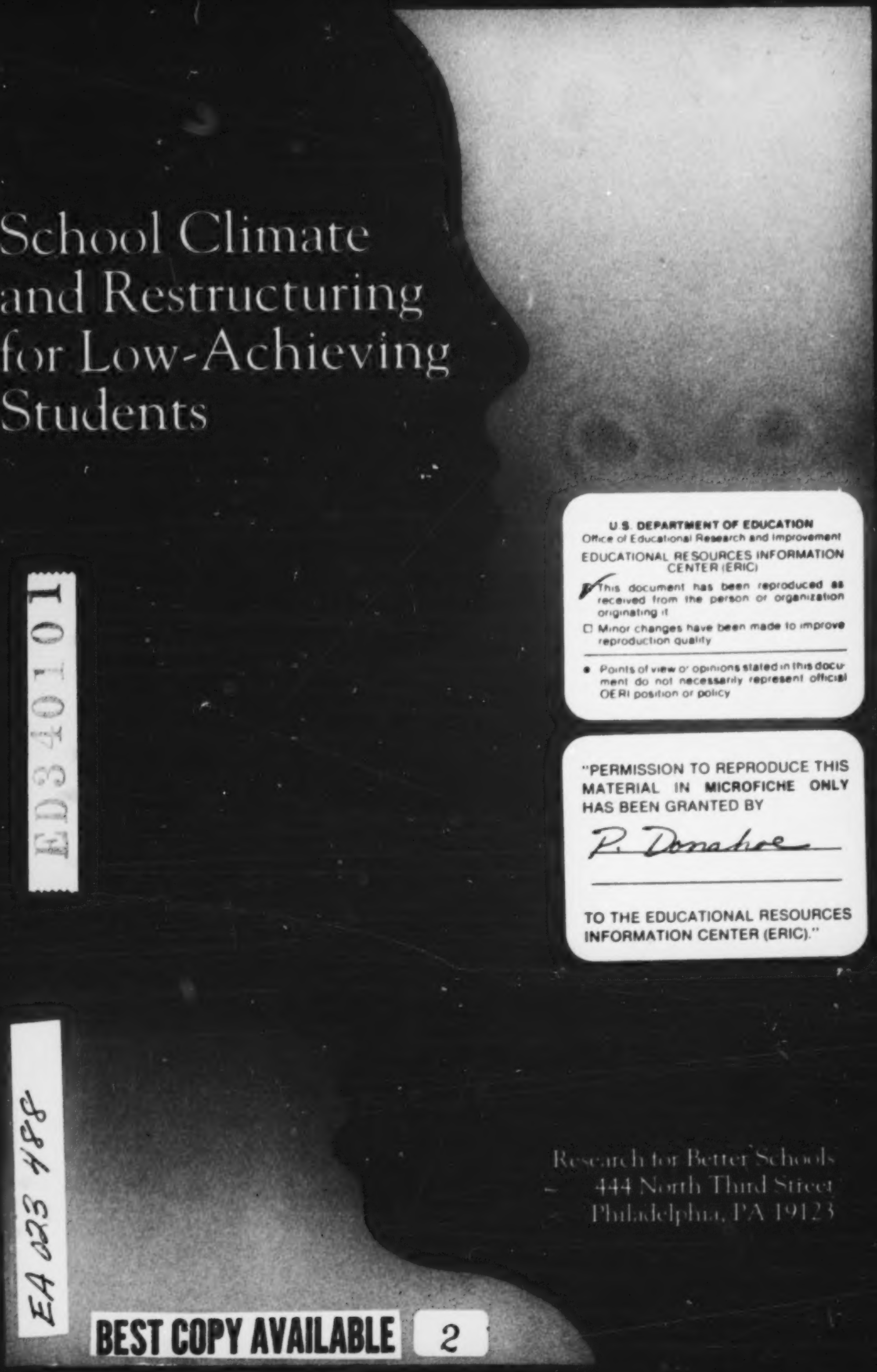

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SCHOOL CLIMATE AND RESTRUCTURING FOR LOW-ACHIEVING STUDENTS

by

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Having said that, this book was basically a solo flight. Although I am appreciative for the assistance and support from others, the responsibility for the book's overall design and conclusions remain with this author.

B. S.-R.

PREFACE

The Special Populations project at Research for Better Schools (RBS) has developed a school improvement model to help schools increase the effectiveness of their educational programs for low-achieving students. The model consists of a procedure to assess the support and services provided to these students and resource documents to assist with the planning and implementation of improvements in identified areas of need.

This book is one in the series of resource documents. Each resource document addresses a selected factor on the Assessment of School Needs for Low-Achieving Students survey* and contains information that responds to specific survey items. The factors are:

- Student Involvement
- Teacher Expectations
- School Climate
- Parent Involvement
- Instruction
- Classroom Management
- Principal Leadership
- School Programs
- Staff Development

The purpose of each resource document is to review factor-related research and to present implications for school practice. The resource document may be used to support existing school or district strategies to improve educational for low-achieving students. Examples of the uses of a resource document include:

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*Assessment of School Needs for Low-Achieving Students: Staff Survey by Francine S. Beyer and Ronald Houston; manual and survey booklets are available from RBS.

- providing the school's task force or planning committee with information for establishing school priorities
- serving as a guide for staff development
- serving as a guide for developing student programs (e.g., summer school program, alternative educational program, academic advising program)
- supporting academic advisors, teachers, and other school staff in involving parents of the target group in their children's education.

This resource document is divided into five sections: (1) review of the problem, (2) a discussion of school climate, (3) a discussion of school restructuring, (4) conclusions, and (5) examples of relevant education programs. A comprehensive list of references is included.

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INTRODUCTION

Educators and non-educators often use the term "climate" when describing schools. It is generally agreed that schools with a good or positive climate have students who are enthusiastic, with high expectations for achievement; dedicated, cooperative teachers; and relationships characterized by feelings of mutual respect, support, and trust. Conversely, in schools with a poor or negative climate students have low expectations, low self-esteem, and a sense of alienation; teachers are isolated and hostile to each other and to students; and the school is perceived as a cold and uncaring place.

While the differences between a positive and negative school climate may be intuitively understood, formal definitions of school climate tend to be analogous and abstract. Halpin and Croft (1963) write that "Personality is to the individual what 'climate' is to the organization" (p. 1). Ellis (1988) defines climate as "the aggregate of indicators, both subjective and objective, that convey the overall feeling or impression one gets about a school" (p. 1). Brookover and his colleagues (1979) refer to school climate as the "composite of norms, expectations, and beliefs which characterize the school social system as perceived by members of the social system" (p. 19). Deal and Kennedy (1983) describe climate as the culture of the school, defined as "an informal understanding of the 'way we do things around here' or 'what keeps the herd moving roughly west'" (p. 14).

As these sample definitions indicate, the meaning of school climate varies in range and focus. Halpin and Croft (1963) and Ellis (1988) describe climate in global terms, whereas the others use climate synonymously with culture (Brookover et al., 1979; Deal & Kennedy, 1983). The definitional issue is further complicated when some authors use the term without defining it, or use it interchangeably with such other terms as atmosphere, environment, ethos, milieu, setting, or context (Anderson, 1985). Thus, readers of the school climate literature often find it unclear whether words used interchangeably are intended to be synonyms or whether two writers are using the term school climate in the same way.

While analogous and vague definitions of school climate may be of some help in determining whether low-achieving students are experiencing a more positive or negative school climate, the construct of school climate must be operationalized in order to establish its components, its correlates, and its cause and effect variables. By so doing, the concept of school climate will be more observable, measurable, and malleable.

For example, Tagiuri (1968) conceptualizes climate as the total environmental quality within an organization and suggests that environment consists of four dimensions:

- ecology (physical and material aspects);
- milieu (social dimension created by the characteristics of groups of persons);
- culture (social dimension created by belief systems, values, cognitive structures, and meaning);
- social system (social dimension created by the relationships of persons and groups).

Anderson's (1982) comprehensive review of the school climate literature, suggests that Tagiuri's system is preferable to others (e.g., Insel & Moos, 1974; Moos,

1974) since it reflects the growing consensus of educational researchers that school climate encompasses the building's total environment.

Educational researchers have long debated what combination of dimensions (ecology, milieu, culture, and social structure) and variables used to define these dimensions works best to create the image of school climate. If one adopts Tagiuri's definition of climate as the total school environment, then, logically, everything may make a difference to the attitudes and behavior of low achievers, and yet to include everything would not be useful (Tagiuri, 1968). Even if variables are sampled for each of the four dimensions, the questions of how many are enough or too many must still be answered.

Attempts of educational researchers to define school climate in terms of **ecology** (e.g., building characteristics, size, finances) and **milieu** variables (e.g., teacher and student characteristics) have shown low or inconsistent relationships with student outcomes (Brookover et al., 1978; Coleman et al., 1966; Duke & Perry, 1978; Rutter et al., 1979; Weber, 1971).

Conversely, research suggests that variables within the school **culture** dimension heavily influence various student outcomes including cognitive and affective behavior, values, personal growth, and satisfaction (Brookover et al., 1978, 1979; Hoyle, English & Steffy, 1985; Duke & Perry, 1978; Vyskocil & Goens, 1979; Weber, 1971). Culture is an expression that tries to capture the informal, implicit -- often unconscious -- side of the school (Deal, 1985). Although there are many definitions, school culture is most often used to mean the common set of values, beliefs, and practices which act as a social control mechanism directing behavior through institutionalized norms (i.e., informal rules) generally subscribed to by organization participants (Hannaway & Abramowitz, 1985). The bases of a school's culture are the rules which represent a common understanding about "what is and what should be" (Corbett, 1990; Wilson, 1971). By influencing behavior, culture affects productivity -- how well teachers teach and how much students learn (Deal, 1985).

In addition, efforts to relate the **social system** dimension (i.e., patterned relationships of students, teachers, administrators, and parents) to student outcomes have been successful, but comparisons are sometimes difficult because of the diversity of constructs measured and differences in how they were operationalized (Anderson, 1982).

Consistent with these findings, the next section of this book focuses on Tagiuri's culture and social system dimensions. Within each of these dimensions, variables are selected and discussed based on their relevance to academic and other desirable outcomes for low achievers. Policies and practices of academically effective schools are contrasted with those of less effective, or ordinary, schools. Since relatively few effective schools exist, emphasis is placed on describing the climatic conditions of the ordinary school and the ways in which these conditions adversely effect low achievers.

The third section of this book describes restructuring, or fundamental school change, as an approach to improving school climate to benefit low achievers. Although the education literature reflects a wide variety of restructuring options, strategies discussed here are limited to decentralizing authority and shared decisionmaking, new professional roles and relationships, accountability systems, curriculum modifications, and school-community partnerships.

There follows a summary and conclusions about the effects of current restructuring proposals on school climate for low achievers. Finally, descriptions are presented of sample restructuring programs which positively influence the school climate for all students, but in particular for low achievers.

SCHOOL CLIMATE

While climate may be conceptualized in various ways, Anderson (1982, 1985), in her extensive review of the school climate literature, recommends adopting Tagiuri's (1968) definitions and framework. As indicated earlier, Tagiuri describes climate globally as the total environmental quality of an organization and suggests that environment consists of four dimensions: ecology, milieu, culture, and social system. While variables within the school culture and social system dimensions appear to be highly correlated with academic performance of low-achieving students, variables within the ecology and milieu dimensions do not appear to be associated with student outcomes.

Thus, in this section, the discussion focuses on variables associated with the school culture and social system dimensions, and the influence these variables have on low achievers. Since effective schools are relatively rare, few of our nation's low achievers attend the ideal school with a positive climate (Cuban, 1989). Therefore, the climate of the average American elementary and secondary school will be examined in order to identify major problem areas for the low achiever.

Throughout this document, the terms school climate, culture, social system, ecology, and milieu will be used as defined by Tagiuri (1968). Environment will be used as synonymous with climate.

Cultural Variables

Research indicates that a select group of cultural variables associated with a positive school climate are often correlated with the academic performance of low achievers. While no single set of correlates transcending all settings has been identified, three cultural variables -- clear goals and core values, high expectations for academic success, and an orderly, disciplined environment -- are consistently included as correlates of effective schools (Anderson, 1990). A key proposition of much of this research is that understanding the culture of a school is a prerequisite to school improvement (Deal, 1985).

1. Clear Goals and Core Values

A shared sense of purpose among students, faculty, parents, and the community at large is a central feature of schools in which low-achieving students are most likely to succeed academically. In schools with a shared sense of purpose, the core value of academic excellence for all is clearly articulated and agreed upon by members of the school community (i.e., school personnel, students, parents, and the community at large). Shared purpose and core values narrow a school's mission and offer guidelines for decisionmaking (Deal, 1985). Organizations with these cultural characteristics are said to have goal clarity and goal consensus (Weisbord, 1976).

On the whole, studies of public education have consistently shown that a clear and well-articulated purpose is conspicuous by its absence in most districts and schools. Goals tend to be so numerous, vague, and ill-defined as to be almost useless in providing direction to staff (Murphy, Mesa & Hallinger, 1984). As a result, all actions cannot be related to goals, members of the school organization are not focused on the same targets for improvement, and no one understands why things are being done in a particular way. Also, without clear goals and core values, it is difficult to set priorities, to allocate scarce resources, and to evaluate educational outcomes.

When researchers compare written goal statements of schools with and without goal consensus, they report no differences in use of abstract language and educational ideals (Corcoran & Wilson, 1988). What does differ is that in schools without goal agreement, the purpose statements are seldom mentioned or used. Conversely, in schools with a high degree of goal consensus, written goals become living documents as staff work together to translate words into actions positively influencing low achievers. In this way, the agreed-upon purpose of the school functions to bond staff, students, and parents together and to create a sense of community for those associated with the school.

Moreover, in schools with goal consensus and a shared sense of purpose, members of the school community are able to articulate what constitutes good performance in a relatively precise, uniform fashion (Wynne, 1981). Without this, students, teachers, administrators, and parents cannot know what is expected of them, nor can they act in a coherent fashion. In his study of "good" schools, Wynne (1981) reports that school personnel, students, and parents understand that teachers must care about all students, including low achievers, and, more importantly, they must know that caring is displayed in observable conduct such as regular and timely attendance, reasonably orderly classes, and friendly but authoritative relations. Typically in schools of poorer quality, faculty members are unable to define their instructional goals (Heath, 1986) and few teachers describe the the school experience as imaginative, adventurous, intellectually exciting, curious, playful, or joyful -- even though they perceive these to be important characteristics of schooling (Lehr & Harris, 1988).

Schools with ambiguous or diverse goals and with weak hierarchies of authority are said to be loosely linked or loosely coupled (Firestone & Herriott, 1982b; Firestone, Herriott & Wilson, 1984; Weick, 1976); those with high goal clarity/consensus and centralization of control are referred to as tightly linked or rational bureaucracies (Firestone & Herriott, 1982b; Firestone, Herriott & Wilson, 1984). These researchers have consistently found elementary schools to have stronger linkages (i.e., stronger consensus and centralization) than junior high schools, which, in turn, have stronger linkages than senior high schools.

While the primary causes of such inter-level variations in organizational linkages are unclear, some researchers cite external social forces (Burns, 1989; Firestone, Herriott & Wilson, 1984). They suggest that societal consensus on the limited purpose of elementary schools (i.e., to focus on teaching the basic skills) is the basis for elementary school consensus (Firestone, Herriott & Wilson, 1984). In contrast, an expanded societal agenda for secondary schools results in "high schools... [accumulating] purposes like barnacles on a weathered ship" (Boyer, 1983a, p. 57). With so many societal goals to consider, secondary schools find it extremely difficult to reach agreement on their purposes.

Explanation of inter-level variations in linkages of schools is based on Parsons' (1960) argument that the main reference point for analyzing an organization is its defined value pattern which must be in accordance with the more generalized values of the larger society of which it is a part. In support of this viewpoint, Weisbord (1976) maintains that, in addition to goal clarity and goal consensus, organizations must have goal fit (i.e, the purposes of schooling must be valued and supported by society).

While research has shown that there is a close goal fit between the expectations of schooling and the Anglo-American middle-class culture, a similar fit is lacking between schooling and the cultural norms of many disadvantaged, low-achieving students. Wehlage and his colleagues (1989) use the term "incongruence" to refer to the gap between the social class or racial/ethnic origins of the student and the school culture. They argue that when schools fail to take into account the social, economic, and cultural contexts in which students live, the ability of many children to remain motivated and perform well in class is jeopardized.

Of relevance to cultural incongruence is evidence that middle-class, Anglo-American children experience a variety of preschool parent-child interactions that match well with the type of teacher-child interactions that dominate classrooms in the early grades (Brown, Palincsar & Purcell, 1986; Fillimore & Britsch, 1988; Laosa, 1980). This assumed match between the ways of behaving at home and what is required in school makes the transition to formal schooling easier for middle-class, Anglo-American culture children than for others (Bruner, 1985; Boggs, Watson-Gegeo & McMillian, 1985; Jordan, 1983). Although the experiences and interactional styles of students of color may be equally rich in linguistic and cognitive content, they appear to be less well matched with extant school activities that are orchestrated by middle-class teachers (Heath, 1981). These findings have been criticized for blaming perceived family and student differences rather than the school for cultural incongruences (Dyson, 1988). However, they support the argument that child-rearing practices of the middle-class favor a variety of mediated learning experiences directed to academic-like tasks, whereas disadvantaged children putatively lack experience in these activities (Diaz, Neal & Vachio, 1989; Feuerstein, 1980; Philips, 1983; Smey-Richman, 1989a).

Other researchers have documented the effects of ethnic and racial messages from home conflicting with the school's goals and expectations for academic performance of students. Traditionally, Latino parents use a terse, authoritarian style of communication which supports the child's respectfulness, but seriously discourages the child's curiosity and willingness to experiment with verbal skills (Hispanic Policy Development Project, 1988). In many Native American cultures, active demonstration of knowledge is considered unseemly; hence, direct questions of children evoke silence (Conklin & Olson, 1988). Mexican-American elementary school girls who conform to "Anglo" expectations (i.e., are competitive, vocal, independent) are singled out by school staff and peers as leaders, but this behavior is considered unacceptable for females in traditional Latin communities (Moore, 1988). When differing cultural, interactional, and behavioral expectations go unrecognized, students are caught in the middle and often their performance is, correctly or incorrectly, deemed poor.

Some researchers refer to the discontinuity between low achievers' experiences at home and the goals of the school as the cultural difference theory. This theory holds that students of color behave at school in terms of the culture learned at home, resisting school and thus failing where the cultures of school and home are different (D'Amato, 1987; Wehlage et al., 1989). For some low-achieving students of color, success in school often means rejecting family and peers; given such a choice, many students of color elect to follow the norms of the home and community (Matute-Bianchi, 1986; Rodriguez, 1982; Weis, 1985) and reject academic effort as part of the teacher's world (Metz, 1983).

In a series of publications challenging the conceptual adequacy of the cultural difference theory, Ogbu (e.g., 1974, 1986, 1987) and others (e.g., Blair, 1971) attribute African-American students' poor academic achievement and school alienation to the students' beliefs about social mobility and the postsecondary opportunity structure. According to Ogbu's theory (1986, 1987), if a society traditionally treats "caste-like minorities" (e.g., African-Americans, Native Indians, Mexican-Americans, Native Hawaiians, and Puerto Ricans) as sources of cheap labor, giving them inferior education and denying them mobility regardless of individual attainment, then these minorities will perceive their economic, social, and political problems as the function of a racist system, rather than individual inadequacies. By perceiving that the system is to blame, minority students conclude it is difficult for them to achieve self-betterment through individual efforts in school (Ogbu, 1974, 1978). Rather than strive for excellence, low-achieving minorities withdraw from the schooling process and concentrate their energies on (1) acquiring behavioral competencies, e.g., manipulation of the system, hustling, learning how to "make it" without school credentials or mainstream employment (Ogbu, 1982, 1987) and (2) group norms, e.g., a shared opposition toward institutions, survival strategies which are in competition with schooling (Ogbu, 1985, 1987), and which commonly lead to conflicts with school personnel.

2. Expectations for Academic Success

Successful schools operate within a school culture in which the principal promotes the core value of high expectations for student achievement, and teachers believe that all students can learn (Miller, Smey-Richman & Woods-Houston, 1987). Researchers have found that administrators and teachers in effective schools have higher expectations for student accomplishment than do administrators and teachers at other schools (e.g., Edmonds, 1979; Murnane, 1984). Similarly, Rutter and his associates (1979) report that teachers in successful schools in the United Kingdom have the expectation that all students will pass their exams.

Low teacher expectations are linked to poor academic performance of low-achieving students when low achievers are given fewer opportunities to interact and participate in classroom activities (Smey-Richman, 1989b). For example, researchers have documented that, compared with other students in the class, low achievers are seated farther from the teacher, are praised less frequently for success, are provided with briefer and less accurate feedback, are called on less frequently to respond to questions, and, when called upon, are provided with less wait time (e.g., Brophy & Good, 1970, 1974; Good, 1981, 1982). In the end, students -- especially those at the elementary school level -- who perceive that teacher expectations are low, often believe they have no chance for academic success (Brookover, Brady & Warfield, 1981) and, over time, these students make fewer efforts to interact with the teacher. They gradually withdraw psychologically from learning in the classroom setting (Rist, 1970).

When it is school policy to group students by ability, low expectations often translate into systematic discrimination against low achievers in terms of the quality of instruction and curricular content (Allington, 1980; Murphy, Hallinger & Lotto, 1986; Rist, 1970). For example, a microethnographic analysis of reading groups at the first-grade level shows that despite the fact that students did not differ in their letter recognition ability (i.e., the researcher-observer determined students' letter recognition abilities, but did not share these findings with the teacher), lower-class children, who were predominantly African-Americans, tended to be assigned to groups where they were given extensive letter recognition drill (Collins, 1980). The Anglo-American, middle-class students in the high groups began passage reading within the first month, whereas the low groups continued pre-reading activities almost five months. Throughout the year, 70 percent of the high group's time was spent on passage reading and comprehension questioning, compared with 37 percent for the low group. To stay busy, low groups spent 47 percent of their reading time in dictation and sound-word identification.

Other studies have corroborated Collin's work and report that when compared with good readers, poor readers receive much less information and spend much less time concentrating on the main purpose of reading, namely, reading for meaning or comprehension (Brown & Campione, 1986; Brown, Palincsar & Purcell, 1986). For poor primary school readers, reading is slow, labored, and halting (Wuthrick, 1990). While good readers read silently 70 percent of the time (Allington, 1983), poor readers generally read orally using a turn-taking procedure which limits the amount of material they actually read (Allington, 1977). Poor readers work on phonics in isolation twice as often as good readers, and spend half as much time reading in context as good readers (Gambrell, Wilson & Gantt, 1981). A typical lesson for poor readers may cover only one segment of a story, which can prolong a lesson for several days -- perhaps lasting longer than the readers' interest lasts (Allington, 1980).

When upper elementary students are placed in self-contained classrooms on the basis of ability, their achievement in mathematics is not enhanced (Slavin, 1986). In many instances, low-achieving elementary students in ability-grouped classrooms are provided less class time for mathematics, and are taught simple arithmetic operations to the exclusion of mathematical problem solving (Conklin & Olson, 1988). The endless repetition of low-order drill and practice in the basic skills, along with the deliberate slowing of the pace of instruction, provides students with only the barest essentials of learning in mathematics (Brown, 1988; Levin, 1987b) and often results in student boredom (Conklin & Olson, 1988). The most often-cited reason to account for this pattern is that low-achieving students must learn fundamentals before they can be offered anything more challenging (Levin, 1987b). An outcome of this school policy is a cumulative learning deficit (Brown, Palincsar & Purcell, 1986; Levin, 1987b) which limits a student's chance for improved student placement, because those in the lower groups have been denied access to the knowledge necessary to participate in more rigorous and interesting work (Oakes, 1985; Sinclair & Ghory, 1987).

However, the research evidence for instructional grouping is not all negative. For example, when upper elementary students are regrouped for reading and mathematics (i.e., students of one grade level are assigned to heterogeneous homeroom classes for most of the day, but regrouped according to achievement level for one or more subjects), Slavin (1986) reports that student achievement can be increased if two conditions are met. First, the level and pace of instruction must be adapted to the achievement level of each group, and second, students must not be regrouped for more than two subjects. Similarly, the practice of within-class ability grouping in mathematics (i.e., students within each classroom are assigned to small groups) has been found to increase achievement of poor performers, especially if only two or three groups are formed (Slavin, 1986).

In an extensive study of the effects of tracking (i.e., between-class homogeneous grouping) at the high school level, researchers report that low-track students spend a large share of their instructional time engaged in rote learning activities, and in application of skills (Goodlad, 1984). In contrast, high-track students are actively engaged in instruction for greater amounts of time and their curriculum is oriented to college-preparatory topics. Low-track teachers prefer passive or conforming student behaviors, and they design the curriculum to emphasize utilitarian life skills. High-track teachers encourage independent and autonomous student learning behaviors, relate more positively to students, and are perceived as more enthusiastic by their high-track students. Not surprisingly, classes in the middle track fall consistently between the high and low groups, but their overall learning conditions are closer to the high-track groups (Goodlad, 1984).

Differences in quality of instruction and curricular content between low and high-achieving students can be attributed in part to a prevailing school policy of matching the most poorly qualified teachers with low-track or low-ability student groups. Evidence suggests the least able students are most often assigned new teachers, less well-prepared teachers, or teachers providing instruction outside of their areas of certification (Braddock & McPartland, 1990; Good & Marshall, 1984; Oakes with Ormseth, Bell & Camp, 1990). Teachers report being less comfortable with and less enthusiastic about teaching lower track classes; they prepare less for these classes and hold lower performance standards for their own instruction (Hallinan, 1984; Heyns, 1974; Rosenbaum, 1976; Schwartz, 1981). At the elementary school level, the underlying belief that anyone can teach low achievers is illustrated by the finding that low achievers often receive much of their instruction from teacher aides, rather than from certified classroom teachers (Brookover, Brady & Warfield, 1981).

Moreover, as a result of grouping policies common to many schools, low achievers are subjected to fragmented coursework rather than integrated learning (Wang, Reynolds & Walberg, 1988). This policy of "spot" remediation by specialists often removes the less capable students from regular classroom activities and causes them to miss core curricular experiences with their peers. In many cases, pullout students have to struggle with a different curriculum, rather than receive help that would support their success in a regular class. Hence, low achievers are expected to synthesize their learning into a coherent pattern without the benefit of support commonly received by students immersed in the central curriculum of the school (Conklin & Olson, 1988).

A recent study compared the two major types of pullout programs providing special help in reading: those funded under Chapter 1 of the ESEA, and those offered under the rubric of special education (Allington & McGill-Franzen, 1989). These authors report significant differences in the quantity and quality of instruction between the two programs. Across the school day, Chapter 1 students received substantially more classroom instruction in reading (i.e., an average of 81 minutes per day for Chapter 1 students versus 46 minutes per day for their peers in special education). Furthermore, while special education students were more likely to spend a greater proportion of their reading time on seatwork activities, Chapter 1 students were more likely to receive the kind of direct or active instruction which has been found to be effective in raising the reading levels of low achievers. Such findings indicate that pullout programs have few educational benefits for children with special needs (Allington & Johnson, 1986; Wang, Reynolds & Walberg, 1988).

Research has begun to examine the role that parents' and students' perceptions of schooling play in influencing student expectations, aspirations, and achievement. In a recent study comparing the beliefs and attitudes expressed by African-American, Anglo-American, and Latino elementary school children and their mothers, the researchers conclude that -- in contrast to current national statistics regarding dropout rates -- families of African-American and Latino students held high expectations about the educational success of their children, and African-American and Latino mothers placed a greater emphasis on and concern about education than did Anglo-American mothers (Stevenson, Chen & Uttal, 1988). In accordance with the ratings by their mothers, the Anglo-American and Latino children tended to rate themselves as above average in reading and mathematics; African-American children's academic self-evaluations were also high, despite evidence that these ratings were sometimes unrealistically high as compared with their actual level of achievement on curriculum-based tests.

Bock and Moore (1986) suggest that if community norms and expectations for achievement are low, parents and students may tend to overestimate children's degree of success in school and the caliber of education being received. In a survey of high school seniors about to graduate from the

Chicago Public Schools in 1987, the seniors indicated that they were being provided with at least a satisfactory, if not above average, education (Hartmann, 1988). Furthermore, the high schools with the highest percentages of African-American, Latino, and low-income students -- the institutions that have received the poorest performance ratings and where graduation rates were the lowest -- were the schools students ranked highest. These unrealistically high expectations for future success suggest that students attending the poorest quality public high schools are not only unaware of their lack of educational preparation, but are also unaware of the inequities involved.

3. Order and Discipline

The American public has long perceived a lack of order and school discipline as the major problem facing public schools. For almost two decades, the annual Gallup poll of educational issues has consistently identified poor discipline and drug use -- a discipline-related issue -- as the two most important problems facing public education (e.g., Elam & Gallup, 1989; Gallup & Clark, 1987). Furthermore, 16 percent of the teachers and principals surveyed selected disruptive student behavior as the leading school problem, and 14 percent of the students rated improving school discipline as the single most important action my school could take to improve my education (National School Safety Center, 1986). These data are especially alarming since the effective schools research supports the common sense notion that an orderly, disciplined environment is essential to the learning process of low achievers (Edmonds, 1979; MacKenzie, 1983; Purkey & Smith, 1985).

While order and discipline are important elements of school climate, how these characteristics are achieved is also important. Approaches to school discipline can be divided into two categories: direct and indirect discipline (Lipsitz, 1984a). Direct discipline encompasses punishment, correction, school codes, and other penalties which adults impose directly on students to encourage their conformity with school norms. Indirect discipline concerns school practices that do not address discipline directly, but nevertheless achieve conformity as one outcome.

The studies which show that good student behavior is not a goal in itself, but a by-product of a positive school culture (e.g., Lipsitz, 1984a; Rutter et al., 1979; Wilson & Corcoran, 1988) are frustrating to educators who want a direct formula for improving disruptive environments. Proponents of this holistic approach argue that effective discipline may not be possible unless some of the other dimensions of effective schools are in place. For instance, Lipsitz (1984a) found that student behavior is better in middle schools with a shared clarity of purpose, high but flexible expectations for student progress, close student-teacher relationships, a high degree of student participation in the workings of the school, and many diverse opportunities for achieving success.

The quality and quantity of school disorder seem to vary across school contexts. Urban schools tend to have more intense and disruptive environments as compared to suburban and rural schools (Curwin & Mendler, 1988), although the differences may not be statistically significant when other school and student characteristics are controlled (DiPrete, 1981). Catholic schools have the best behaved student bodies, followed by private and then public schools (Coleman & Hoffer, 1987; DiPrete, 1981). Schools that have very high or very low proportions of Anglo-American students are perceived by students as being more orderly and disciplined than schools with a heterogeneous racial mix (DiPrete, 1981). Middle schools have the greatest difficulty becoming disciplined communities (Epstein, 1981; Lipsitz, 1984b), while high schools must contend with the more destructive problems often associated with drug use, e.g., violence, vandalism, theft, teenage pregnancy, and suicide.

The quality of a school's climate greatly impacts the classroom learning environment. Since classrooms are embedded in schools, it would be difficult, if not impossible, to provide effective classroom instruction in a disorderly, disorganized, and disoriented school environment (MacKenzie, 1983). The findings of the effective schools research ultimately boil down to behavioral changes at the classroom level (Tomlinson, 1981). It is the classroom where the low achievers' learning takes place, by which researchers and practitioners judge the effectiveness of a school and its climate.

Reduced amounts of student engaged time negatively influence the learning of low-achieving students (e.g., Caldwell, Huitt & Graeber, 1982; Fisher et al., 1978). Research shows that as compared to their peers, low achievers demonstrate more off-task behavior including, for example, more time lost during transitions or due to teacher and student interruptions, more time spent without a work assignment, and more time lost because of a late start or early ending time (Murphy, Hallinger & Lotto, 1986). Moreover, students identified by their teachers as low achievers were actively involved in learning only 50 percent of the class time, as compared to 70 percent of the class time for high achievers (Brophy & Evertson, 1976). Similarly, when ability grouped by within classes, time-on-task is generally lower in low than high groups (e.g., Gambrell, Wilson & Gantt, 1981).

Although certainly not in every case, there seems to be a close relationship between students who achieve poorly and those who misbehave (Curwin & Mendler, 1988; Gaddy, 1988; Goodlad, 1984; National Institute of Education, 1978). Researchers have noted that classes with a high proportion of low-achieving students tend to be more difficult to manage because of student disruptions (Metz, 1978; Schwartz, 1981). Possibly as a result of greater class disruptions, teachers of low-ability classes stress good classroom conduct over achievement (Allington, 1983; Schwartz, 1981). Based on their review of the research, Gentile and McMillian (1987) characterize the misbehavior of low achievers as ranging from anger and aggression to avoidance and apprehension. Others refer to survey data which reveal that sophomores who get mostly A's have one-third as many absences or incidents of tardiness per semester as compared to those who get mostly D's. The A students were 25 times more likely to have their homework done, and 7 times less likely to have been in trouble with the law (U.S. Department of Education, 1986).

While the cause and effect relationship between poor academic achievement and misbehavior is unclear (Gaddy, 1988), some suggest that schools themselves are sources of disruption (DiPrete, 1981; Metz, 1983; Wehlage & Rutter, 1986). The school's competitive goal structure, which is designed to sort and rank students, offers low-achieving students few rewards and many reasons for resistance (Ames & Ames, 1984; Metz, 1983).

A curriculum perceived to be irrelevant and void of stimulating or intellectual challenges encourages some low achievers to reject schooling and cause trouble (Curwin & Mendler, 1988). Frequent or inappropriate disciplinary actions by teachers and administrators often elicit peer approval for the misbehaving students and create a negative atmosphere which actually provokes and perpetuates disruptive student behaviors (Rutter et al., 1979). When disruptive students derive pleasure from upsetting the teacher and the teacher derives satisfaction from catching them misbehaving, chronic student-teacher conflicts ensue (Curwin & Mendler, 1988). Students use these conflicts to protect their self-pride and to show their dis-identification with the schooling process (Metz, 1983).

In order to avoid an atmosphere of conflict, some high school teachers and low-achieving students have struck a deal (Cusik, 1973; Sizer, 1984), which can be described as the students offering attendance in class and docile behavior in exchange for limited pressure from the teacher to perform academically (Rossman, Firestone & Corbett, 1985). This negotiated aspect of classroom life implies that low-achieving students and teachers are co-conspirators in presenting the appearance of learning and order in class. In these instances, order becomes the ultimate goal, with poor academic learning the trade-off.

Another conflict-avoiding strategy of some teachers is to attempt to transfer low-achieving, troublesome students out of their classes by referring them to special education. Teachers often refer students at least partly because of behavioral rather than learning problems (Wang, Reynolds & Walberg, 1988), and teacher referral is the best predictor of special education identification in many schools (Algozzine, Christenson & Ysseldyke, 1982; Ysseldyke, Christenson, Pianata & Algozzine, 1983). Female teachers tend to refer highly aggressive students to special education more frequently than do male teachers, while all teachers with strict standards of classroom conduct refer students with low levels of aggressive behavior more frequently than do teachers with lax standards (McIntyre, 1988, 1989). Given the ambiguous criteria that exist for identifying learning disabilities and serious emotional disturbance, teachers considering special education referral for low-achieving, disorderly students make these decisions in the face of uncertainty (McIntyre, 1989; Wang, Reynolds & Walberg, 1988, 1989). As a result, students may be receiving unsuitable treatment and may be harmfully stereotyped or given a pseudoscientific excuse for their poor learning progress (Wang, Reynolds & Walberg, 1988). Linguistic minority students enrolled in monolingual classes (Landurand, 1980), African-Americans, and those with low socioeconomic backgrounds are especially vulnerable to incorrect referrals to special education (National Coalition of Advocates for Children, 1985; Wang, Reynolds & Walberg, 1989).

Finally, most school administrators, especially at the secondary level, use out-of-school suspension as punishment for unacceptable student behavior (Cass, 1986; Uchitelle, Bartz & Hillman, 1989). While proponents of suspension argue that removing disruptive students from the school effectively remedies unacceptable behavior and protects the safety of the school community, opponents criticize this practice for alienating students and their parents, and for failing to protect the interests and rights of the individual (Boyer, 1983b). Elementary school suspension is predictive of subsequent achievement and social difficulties, multiple suspensions in future grades, and eventually dropping out (Massachusetts Advocacy Center, 1987). Since low-achieving students lose valuable learning time when they are suspended, child advocate groups point to data showing an increased use of suspension as a reason for concern (Sinclair & Ghory, 1987).

The policy and practice of school suspensions impact some students more than others. Suspension rates are substantially higher for students who are male, African-American, poor, older, and in the bottom quartiles of their classes than their peers (Campbell, Achilles, Faires & Martin, 1982; Children's Defense Fund, 1975). While the largest numbers of suspended students are Anglo-American, the suspension rate for African-American and Latino students is approximately twice that of Anglo-Americans (Children's Defense Fund, 1975; Ordovensky, 1988). Those who analyze the reasons for suspension tend to agree that treatment of different racial groups is equal in cases of serious misconduct and unambiguous violations of rules, but varies by race in cases depending on subjective judgment (e.g., defiance of authority, disrespectful conduct, "playful" fighting, truancy) (Campbell, Achilles, Faires & Martin 1982; Sinclair & Ghory, 1987).

Social System Variables

While cultural variables refer to the common set of values, beliefs, and practices which act as social control mechanisms mediating the behavior of school members, the school's social system variables deal with the patterns of work relationships within a school community (Tagiuri, 1968). From this perspective, schools may be viewed as places in which students, teachers, administrators, and parents interact as members of a social group (i.e., members have dependable and expected responses from each other), not as a scattered number of individuals (Wilson, 1971). Each group is interdependent, engaging in a dynamic relationship with every other group (Hawley & Rosenholtz, 1984).

Student-school relationships, professional staff relationships, and parent-school relationships are social system variables which research has shown to have an important impact on the attitudes and behaviors of low achievers.

1. School-Student Relationships

Research suggests that specific school practices are not as important to the academic progress of low achievers as the way these practices are combined to form a sense of community which fosters positive student development (Hersh, 1982; Rutter et al., 1979). A sense of community means a collective sense of responsibility -- shared by students, staff, and parents -- for what happens in the school and for what happens to one another (Rossman, Firestone & Corbett, 1985). It extends beyond the academic focus to include a more holistic concern for the well-being of others. A sense of community is the cohesiveness which draws people into the school organization and holds them together.

The ethic of personal caring is an important aspect of a sense of community. School staffs' caring about the low achievers' academic progress, and their willingness to accept moral responsibility to teach the whole child, differentiates effective from less effective schools (Duke & Perry, 1978; Hersh, 1982; Iannaccone & Jamgochian, 1985; Lipsitz, 1984b; Murphy & Pruyn, 1983; Purkey & Smith, 1983; Wehlage et al., 1989). Personal caring means the individual, low-achieving student is not anonymous; each student's personal characteristics, idiosyncrasies, and problems are acknowledged and respected by others in the community. Personal caring also means school personnel help low-achieving students cope with problems by being readily available for consultation, to offer guidance and advice, and to encourage low-achieving students to stay in school (Lee & Berman, 1987). Such a high level of focus on the individual helps build school commitment (Rossman, Firestone & Corbett, 1985) and is necessary for low-achieving students to deal with their academic and personal problems (Wehlage & Rutter, 1986).

In addition to personally caring about what happens to low achievers, teachers in schools with a sense of community have a sense of efficacy in their ability to teach low achievers. A sense of efficacy refers to the teacher's perception that their teaching is worth the effort, that it is personally satisfying, and that it leads to the academic success of poorly performing students (Newmann, Rutter & Smith, 1989). In less effective schools, school staff express the opinion that they are helpless in impacting the academic performance of low achievers (Brookover & Lezotte, 1979), especially if the low achiever is poor, of color, or from a single parent or non-educationally oriented family (Mann & Inman, 1984). Furthermore, in effective schools, teachers of affluent and middle-class students tend to perceive a higher level of efficacy with low achievers than do teachers of lower-class students (Hallinger & Murphy, 1986).

Based on the theoretical definition of sense of community found in the effective schools literature, Bryk and Driscoll (1988) created an index of "school as a community" using longitudinal data from the High School and Beyond study (National Center for Education Statistics, 1982). Their definition of community stipulates the need for shared beliefs and values, a common agenda of activities, and caring relationships particularly manifested in teachers' willingness to extend their role beyond the classroom. These researchers report that in schools with highest community feelings, students have a greater interest in academics, and twelfth graders, especially those who are poor or students of color, achieve substantially better in mathematics. Other positive student outcomes associated with a strong sense of community are less class-cutting, lower absenteeism, substantially reduced levels of disruptive student behavior, and fewer dropouts, even among the poor and students of color.

Closely paralleling the concept of sense of community is the notion of school membership. In an attempt to develop a theory of dropout prevention based on data gleaned from 14 secondary school case studies, researchers posited that achieving school membership is a prerequisite for low-achieving students' academic learning and other desirable outcomes (Wehlage, 1989; Wehlage et al., 1989). School membership is defined as a sense of belonging or social bonding to the school and its members (Wehlage, et al., 1989). Full membership occurs when the student becomes attached to, committed to, involved in, and believes in the institution (Wehlage, 1989).

An important element of school membership or a sense of community is student participation in institutional activities. In order to feel a sense of belonging or ownership in a school, low-achieving students must be given meaningful opportunities to take part in the life of that school. Researchers and practitioners have stressed the importance of opportunities for student participation in class activities to the development of a positive classroom atmosphere (Bossert 1979; Coppedge & Exendine, 1987; Hawkins, Doueck & Lishner, 1988). Similarly, the extent to which students participate in extracurricular school activities is related to achievement (Rutter et al., 1979) and student acceptance of school norms (Mitchell, 1967; Rutter et al., 1979; Stenson, 1985; Weber, 1971).

Rather than feeling a part of a school community, most low-achieving students experience alienation or an absence of psychological bonding with the school (Firestone & Rosenblum, 1987; Wehlage, et al., 1982). While the word alienation lends itself to a wide variety of meanings (Hoy, 1972), educational researchers often use the term to refer to relationships of detachment, estrangement, fragmentation, isolation, and separation (Newmann, Rutter & Smith, 1989).

Students' feelings of alienation or detachment from schooling are widespread. Survey data indicate that nearly half of secondary school students are dissatisfied with many aspects of school life (Epstein, 1981). While alienation is greatest at the senior high level, a survey of middle school students reports that 25 percent dislike school, and up to 60 percent feel anxious about school or believe they cannot learn (Lipsitz, 1984a).

Student alienation is reflected in our nation's dropout statistics. According to one estimate, in October 1988, approximately 13 percent of all 16 to 24-year-olds, or nearly 4.2 million young adults, were not attending school and had not completed high school (National Center for Education Statistics, 1989). Even though the majority of dropouts are Anglo-Americans, the dropout rates are higher for African-Americans and Latinos. In 1988, the dropout rates for Anglo-Americans, African-Americans, and Latinos were 15, 22, and 28 percent, respectively (National Center for Education Statistics, 1989). Dropout rates are usually significantly higher in urban districts, sometimes approaching the two-thirds mark in an individual high school building (Fine, 1986; Toles, Schulz & Rice, 1986). While overall dropout rates have declined during the last decade, particularly for African-Americans, the dropout rate for Latinos has remained virtually unchanged. Among the Latinos who drop out, nearly one-third have completed six years of school or less (National Center for Education Statistics, 1989).

Poor academic achievement, in combination with low socioeconomic status, has been found to be the best predictor of premature school-leaving (Bachman, O' Malley & Johnson, 1971; Ekstrom, Geortz, Pollack & Rock, 1986; Pallas, 1987; Rumberger, 1987). Students with poor grades, who repeated a grade, or who are over-age for their grade are more likely to become dropouts than others (Borus & Carpenter, 1984; Ekstrom, Geortz, Pollack & Rock, 1986; National Center for Education Statistics, 1989). Researchers have found that it is possible to discriminate potential high school dropouts from graduates with 75 percent accuracy as early as the third grade, using a set of variables including father's education, father's occupation, mother's education, parents' marital status, third grade point average, third grade IQ, and prior grade retention (Lloyd, 1978). Others have correctly identified entering ninth graders who eventually became dropouts with 91 percent accuracy based on a combination of student IQ, age (i.e., a proxy for grade retention before ninth grade), mathematics achievement test score, and father's occupation (Walters & Kranzler, 1970). For Latinos, speaking a language other than English at home, and/or perhaps some other family-related factors, adds to the likelihood of dropping out, above and beyond the impact of socioeconomic disadvantage and low achievement (Steinberg, Blinde & Chan, 1984).

School behavioral problems (i.e., tardiness, absenteeism, truancy, and discipline problems) are also associated with dropping out (Bachman, Green & Wirtanen, 1971; Ekstrom, Geortz, Pollack & Rock, 1986; Wehlage & Rutter, 1986). The absenteeism rate of dropouts correlated inversely with the grade in which students dropped out (Nachman, Geston & Odgers, 1964). Dropouts were found to have about twice as many days absent from the seventh grade through the time they dropped out as they had in the first through sixth grades. Absenteeism, truancy, or tardiness might better be considered symptoms of underlying problems rather than actual causes of alienation and dropping out (Rumberger, 1987).

Lack of involvement in extracurricular activities is another important school-related factor associated with student alienation and premature school leaving (Soderberg, 1988). In schools where students are denied meaningful participation in school activities because of a perceived dominating student clique, non-participating students feel little social bonding with school and express resentment toward the dominating clique (Hamilton, 1982; Rafalides & Hoy, 1971). Studies show that as many as 90 percent of ninth grade dropouts do not participate in extracurricular activities (Nachman, Geston & Odgers, 1964). Furthermore, low achievement, poor attendance, and lack of involvement in extracurricular activities are closely associated with each other (Neill, 1979).

While almost half of all dropouts in one study cited school-related reasons for leaving school (e.g., disliking school or being expelled or suspended), 20 percent of all dropouts -- but almost 40 percent of Latino males -- cited economic reasons for leaving school (Rumberger, 1987). Researchers describe work-related reasons for leaving school as a push-pull phenomenon: some students work out of family necessity and others are pulled out by the lure of cash (Mann, 1986; Workman, 1990). Negative student outcomes associated with working more than 15 hours per week are less student enjoyment of school, less participation in extracurricular activities, a decline in attendance and time spent on homework, and a decrease in student academic performance

(Steinberg, Greenberger, Gadugue & McAuliffe, 1982). Between 15 and 20 hours of employment per week increase the dropout rate by 50 percent; 22 hours a week increase the risk by 100 percent (Mann, 1986). Such findings support the view that employment opportunities serve to interfere with students' psychological bonding to school, especially if students elect to work a substantial number of hours per week (Mann, 1986; Workman, 1990).

While various school and family-related factors are closely associated with dropping out, the low achievers' act of rejecting school is often accompanied by the belief that the school has rejected them (Wehlage & Rutter, 1986). Secondary students perceive school as a place where there is limited teacher-student contact (Perry, 1988), where teachers are not particularly caring or interested in them (Wehlage & Rutter, 1986), and where impersonal student-staff relationships make it unlikely that adolescents with a serious problem, such as drug abuse or pregnancy, would seek help from a school counselor, teacher, or administrator (Naginey & Swisher, 1990). For low achievers, the gradual process of alienation probably begins with consistently negative messages concerning academic inadequacies and failures, and is accompanied by the perception that the institution's discipline system is both ineffective and unfair (Wehlage & Rutter, 1986). As these messages accumulate into concrete problems, such as failing courses, lacking credits to graduate, or school suspension, low achievers become increasingly dissatisfied with school and lose their commitment to graduate.

Some describe the relationship between teacher and low-achieving student as mutually reinforcing cycles of alienation (Brookover et al., 1978; Firestone & Rosenblum, 1987; Firestone, Rosenblum & Webb, 1987). A major reinforcer for teachers is how students respond to lessons (Lortie, 1975). Teachers get their greatest rewards from working with students who are responsive and high achieving; they withdraw and do less when working with low achievers. As teachers' commitment to teaching low achievers declines, they externalize responsibility for their difficulties by blaming administrators or the low-achieving students themselves (Firestone, Rosenblum & Webb, 1987). Students who do not understand and who perceive teachers as uncaring withdraw from class and make less and less effort to respond (Brookover et al., 1978; Firestone, Rosenblum & Webb, 1987). Getting no response, teachers become more lethargic or impatient and verbally abusive. Low achievers' alienation increases, which leads to poorer academic performance and then disruptive behavior. These student behaviors further reduce teacher commitment and the alienation cycle continues (Firestone & Rosenblum, 1987; Firestone, Rosenblum & Webb, 1987).

2. Professional Staff Relationships

Due to the mutually reinforcing relationship between teachers and students, efforts to improve low-achievers' learning conditions are often described as inextricably related to improving teacher work relationships and conditions. The premise that teacher work relationships and the nature of the school as a workplace affect the degree to which teachers are actively engaged in teaching and striving to create exciting learning environments is found in both the organizational behavior and educational reform literature (Louis & Smith, 1989; McLaughlin, Pfeifer, Swanson-Owens & Yee, 1986). If one assumes teaching conditions impact student learning conditions, the issue of staff relationships becomes a subset of the broader objective of improving schools to increase low achievers' academic performance.

Teachers' Work Relationships. In each school there are norms of interaction for the faculty. These group standards influence how teachers see their work and their relationships with those outside the group, namely, students, the principal, and parents (Feiman-Nemser & Floden, 1986). Furthermore, commonly accepted standards dictate how teachers will interact with each other.

Norms of collegiality exist in schools, where teachers collaborate and communicate with their peers about classroom practices, where they share efforts to design and prepare curriculum, and where they mutually observe and critique each other's teaching (Little, 1982). Research suggests collegiality requires respect, trust, and an interest in colleagues' work (Rossman, Firestone & Corbett, 1985); it is characterized by cooperation, concern, and friendliness among the faculty (Anderson, 1985). Teachers' awareness of each other's work and their willingness to help each other seems to increase a schools' sense of community (Newmann, Rutter & Smith, 1989; Little, 1982; Rosenholtz, 1989a).

Little (1982) stresses that there is nothing particularly virtuous about collegiality and collaboration per se. It can serve to block change and put down low-achieving students, or it can elevate learning. It is only when collegiality is linked to norms of continuous improvement that teachers are constantly seeking and assessing potentially better practices inside and outside of their own school (Little, 1982). In schools with the dual norms of collegiality and continuous improvement, the teaching faculty value mutual sharing and joint efforts as they experiment with new ways to address the educational needs of low achievers (Fullan, Bennett & Rolheiser-Bennett, 1990).

A number of studies have asked teachers of low achievers to indicate their preferred source of professional advice in the area of curriculum and instruction (Shanker, 1986). Consistently, teachers rate ideas from peers more highly than ideas from individuals in official supervisory positions or outside specialists (Lortie, 1986; Shanker, 1986). Teachers feel colleagues understand the work and problems of teaching (Maxson, 1990). They believe that interactions with their co-workers should be informal and voluntary. Teachers like other teachers to share the workload, non-teaching duties, and problems they encounter (Lortie, 1975).

As with a strong sense of community, collegiality is associated with successful schools and improved academic performance of low achievers (Rosenholtz, 1989b; Rutter, et al., 1979; Wynne, 1980). Mutual support from other staff members encourages teachers to put forth maximum effort and thereby contributes to student achievement (Little, 1982; Rosenholtz, 1985). Maximum teacher effort and teacher engagement have been found to stimulate student engagement (Firestone, Rossman & Webb, 1987; Louis & Smith, 1989). Teachers in successful schools experience collegial interactions more frequently, with a greater number and diversity of people, and with more concrete and precise language than teachers in less successful and ordinary schools (Little, 1982; Reitzug, 1989). Benefits of collegiality accruing to teachers of low achievers include increased morale in times of stress, increased sense of efficacy, and increased support for change and innovations (Ashton, Webb & Doda, 1982; Nias, Southworth & Yoemans, 1989; Lipsitz, 1984b; Rosenholtz, 1989b; Scott & Smith, 1987).

Collegiality suggests professional relations which are nonexistent for the vast majority of educators of low-achieving students. Typically, teachers work alone in the classroom, seldom interacting professionally with their colleagues (Scott & Smith, 1987). Often colleagues form cliques and seem unwilling or unable to work cooperatively to improve the performance of low achievers (Corcoran, Walker & White, 1988; Schwartz, Olson, Ginsberg & Bennett, 1983). In some studies, as many as 45 percent of the teachers report no contact with each other during the workday; another 32 percent say they have infrequent contact (Bennett, 1986). If teachers perform their work in isolation, neither helping nor being helped by others, then they cannot benefit from each others' experiences. Moreover, novice teachers have as much influence on the school as experienced teachers (Tucker & Mandel, 1986). Professional isolation means teachers must rely primarily on their own ability to identify problems, develop solutions, and choose the best alternatives for educating low achievers (Rosenholtz, 1989b).

In each school, tacit boundaries exist with respect to the work talked about, with whom, and where. Despite teacher isolation, faculty members use cordial conversations in the teachers' lounge to build a sense of commonality (Burlingame, 1983). Swapping war stories becomes a way of joining teachers with each other. Yet, such tales can reinforce the belief that nothing can be done for problem students such as low achievers (Rosenholtz & Kyle, 1984). Complaints about students that are unaccompanied by possible remedial actions convey a lack of certainty that anything can or should be done. Indeed, the offer of only sympathy about coping with low-achieving or difficult students may reinforce teachers for acts of nonteaching (Rosenholtz & Kyle, 1984; Firestone, Rosenblum & Webb, 1987). Further, the function of teacher complaints is to allow the faculty to shift responsibility for poor student achievement to others, and to maintain teachers' self-esteem (Firestone, Rosenblum & Webb, 1987).

In isolated settings, novice teachers learn to teach low achievers by trial and error. Through on-the-job experience, beginning teachers develop strategies, try them out, assess their effectiveness, and cast aside those least successful. In this laborious fashion, teachers build a teaching repetoire. Wishing not to jeopardize their professional reputations, beginning teachers often hesitate to request help; on the other hand, experienced teachers do not volunteer advice or assistance, in an effort not to offend the novice (Rosenholtz & Kyle, 1984). Yet, new teachers commonly receive the most difficult teaching assignments and are more likely to teach classes of low achievers than experienced teachers (McLaughlin, Pfeifer, Swanson-Owens & Yee, 1986).

Beginning teachers often deal with their professional isolation by leaving the teaching profession. Two-thirds to three-fourths of teachers who defect from teaching do so in the first four years (Rosenholtz & Kyle, 1984). Moreover, a third to a half of all experienced teachers say they would not enter teaching if they could begin again (Grant, 1983). The reasons teachers cite for leaving teaching are doubts about their ability to succeed with low-achieving students, failure to deal effectively with student misbehavior, conflict with colleagues or the principal, and lack of opportunity for professional development (Rosenholtz & Kyle, 1984). Other sources of teacher dissatisfaction are lack of recognition and respect; class size and emotional needs of students; clerical tasks and supervisory duties at schools; shortages of teaching supplies, materials, and equipment; and lack of clear and consistent policies on discipline and attendance (Lortie, 1975; McLaughlin, Pfeifer, Swanson-Owens & Yee, 1986; Schwartz, Olson, Ginsberg & Bennett, 1983).

Finally, the way work is organized in a school influences the development of collegial relationships. Team teaching, providing time for joint planning, and similar arrangements which encourage close working relationships increase interactions among teachers and give them more opportunities to discuss common problems. Even though broader sharing can occur in schools where conventional arrangements prevail, such structures often produce hit or miss outcomes in which some teachers share and others are left out (Lortie, 1986).

In addition to faculty collegiality, staff participation and leadership in decisionmaking are important social system variables (Taguiri, 1968). The ability of teachers to shape decisions is commonly associated with the cohesiveness of a school, teacher morale, and improved academic performance of low achievers (Phi Delta Kappan, 1980; Rutter et al., 1979; Wehlage et al., 1989; Wynne, 1980). However, teachers report that they have little or no influence in curriculum and policy decisions affecting their school (Swick & Hanley, 1980). Based on data collected from 22,000 high school educators nationwide, researchers conclude, for example, that nearly one-third of the teachers play no role in shaping the curriculum they teach, and 70 percent have no influence in designing their school's retention policy (Boyer, 1988). Rather than ask teachers for input, school administrators generally translate district policy into rules and procedures which they hand down as fiats to the instructional staff.

Principals' Work Relationships. The principal's most significant or "core" relationship is with the teachers in his or her school (Lortie, 1982). This relationship is based on the teachers' willingness to accept the authority of the principal in return for the principal's use of authority to support working conditions favorable to student achievement and its rewards (Lortie, 1975). For example, teachers of low achievers want principals to be advocates of what is best for their students, to provide resources, to encourage and reward the faculty for persevering in difficult tasks, to serve as a buffer from parents, and to deal with troublesome students (Duckworth & Carnine, 1987; Lortie, 1975; Rubinstein, 1990). This exchange of teacher's loyalty and deference in return for the principal's facilitation of teaching is the primary activity of principals (Lortie, 1982).

Teachers and principals are interdependent in making schools effective. The principal represents the interest of the school as a whole and plays an important role in developing teacher cooperation and collegiality (Blase, 1987; Maxson, 1990). The most effective schools for low achievers have a greater number of overall principal-teacher interactions, as well as more time spent in such interactions, than ordinary schools (Reitzug, 1989). Furthermore, the degree to which principals support teachers in instructional matters is far greater in effective schools (e.g., Brookover et al., 1979; Edmonds, 1979; Weber, 1971). Indeed, it is unlikely that collegial teacher relationships and a sense of community could exist in a school without frequent social/personal interactions between teachers and the principal (Reitzug, 1989).

In reality, however, teachers and principals do not frequently interact about instructional matters (Leithwood & Montgomery, 1982). Principals seem to devote most of their time to a myriad of brief and often unscheduled meetings with people who have problems (Kmetz & Willower, 1982; Morris, Crowson, Hurwitz & Porter-Gehrie, 1981; Martin & Willower, 1981). This intuitive and reactive behavior of principals creates a disparity between what principals do and what they say they want to do

(Clabaugh, 1990). Principals say they prefer to focus their efforts on curriculum and instruction, but, in fact, they devote a majority of the school day to program administration and discipline (Coleman, Mikkelson & LaRocque, 1990; Hallinger & Murphy, 1987).

Many teachers perceive the principal's office as opposing the faculty, unresponsive to teacher needs, or self-serving (Farber & Miller, 1981). In urban schools rated low in collegiality, the school faculties described themselves as those who align themselves with the principal and those who do not (Corcoran, Walker & White, 1988). Teachers who oppose the principal view the school administrator as making numerous demands regarding low-achieving students without providing adequate teacher support (Schwartz, Olson, Ginsberg & Bennett, 1983; Noblit, 1986). Furthermore, these teachers identify their unrealized expectation (i.e., that the principal should make the school run well) as their major source of stress and burnout (Schwartz & Olson, 1987). In part, this stressor reflects the teachers' perception that school administrators are not helping them cope with low-achieving students as they should (Noblit, 1986).

In urban schools where teachers and principals distance themselves from each other, researchers report that school administrators prefer the autocratic management style and teachers rate the quality of communication with principals as poor (Corcoran, Walker & White, 1988). In such schools, teachers of low achievers feel that they can only influence the principal by complaining. Teachers interviewed by Corcoran and his colleagues (1988) say they are seldom consulted by the principal and, even when asked for their opinions, teachers perceive the principal as not really listening to them. Conversely, principals consistently rate teachers' influence higher than the teachers do and, moreover, they express the opinion that the principal can not run a school by a committee system (Corcoran, Walker & White, 1988). Wishing to avoid unwanted speculation about their inability to lead, some principals prefer not to share school problems with the teaching staff or their superordinates (Wolcott, 1973).

A major limitation to developing a strong principal-teacher working relationship is the scarcity of time and energy. Some point to the incredible volume of daily interactions between low-achieving students and their teachers (Jackson, 1968; Lortie, 1975; Noblit, 1986). The principal's interactive press is also a key finding in the administrative behavior literature (Morris, Crowson, Hurwitz & Porter-Gehrie, 1981). Coping with a large volume of interactions drains time and energy which teachers and principals could devote to working cooperatively to address issues such as improving learning conditions for low achievers (Duckworth & Carnine, 1987).

The ability of teachers of low achievers and the principal to enjoy a close working relationship is also constrained by legal and institutional regulations (Duckworth & Carnine, 1987). For example, principals must evaluate teachers on a periodic basis. Given the prevailing vague school goals and lack of administrators' instructional monitoring, evaluation becomes a source of teacher-principal stress and tension (Schwartz & Olson, 1987). Teachers are guarded in what they allow principals to observe and may become defensive in response to principal feedback (Clark & Yinger, 1979; Duckworth & Carnine, 1987). Principals are frequently unskilled in using supervisory conferences to assist teachers improve their performance with low achievers (Sweeney, 1983). Where teachers' classroom practices are protected by contract language, principals often regard attempts to improve teaching as a mine field and withdraw further from involvement in instructional matters (Duckworth & Carnine, 1987; Goldschmidt, Bowers, Riley & Stuart, 1983).

3. Parent-School Relationships

Theoretical and empirical evidence suggests that good principal-parent and teacher-parent relationships result in significant educative benefits for low achievers, including increased academic performance, increased student attendance, decreased dropout rate, and improved attitudes and behaviors (Clark, Lotto & McCarthy, 1980; Phi Delta Kappan, 1980; Rich, 1985; Sattes, 1985; Seeley, 1984; Walberg, 1984). While a majority of this research focuses on the role of the parent at the preschool and elementary school levels, other studies provide evidence that learning and development of low achievers can be enhanced through parent involvement at the secondary school level as well (Ascher, 1988; Dornbusch & Ritter, 1988; Scott-Jones, 1988; White, 1975; Willis, 1989). However, achieving this goal is complex and difficult (Lightfoot, 1978; Rogers & Chung, 1983). Thus, educators must develop various mechanisms to facilitate positive parent-school relationships, and to capitalize on the parents' desire to improve their children's performance in school (Crowson & Porter-Gehrie, 1980; Houston & Joseph, in press).

Recent research has examined variables that explain variation in amount and type of parent involvement practices (Epstein, 1984; Hoover-Dempsey, Bassler & Brissie, 1987). Studies generally report that parents in high socioeconomic communities are very involved and supportive of school programs, whereas lower social class parents are less involved and less helpful (Lareau, 1987; Hoover-Dempsey, Bassler & Brissie, 1987). Parent interests, demands, and expectations also tend to vary according to social class (Rosenthal, 1969).

Principals generally employ three leadership styles when responding to parent influence regarding low-achieving students: socialization, cooperation through coalition forming, and buffering and cooptation (Goldring, 1986; Morris, Crowson, Porter-Gehrie & Hurwitz, 1984; Wolcott, 1973). Principals engage in socialization when they try to mold parent involvement by encouraging parents to accept school goals and methods used with low achievers (Morris, Crowson, Porter-Gehrie and Hurwitz, 1984). Principals engage in cooperation through coalition forming when they seek to work with parents to achieve common goals. When using this style, school personnel view parents as important allies and seek to involve them in helping the low-achieving students. And finally, principals use buffering and cooptation when they wish to diminish parent influence and preserve the status quo.

Principals' response strategies to parental influence tend to differ according to the social status of the parent group (Goldring, 1990). Principals of low socioeconomic status schools tend to act as buffers, carefully controlling access to the school and its program, whereas principals of high socioeconomic schools engage in socialization and cooperation. According to Hallinger and Murphy (1986), principals in high socioeconomic status schools are constantly "mediating community expectations...and constantly seeking efficient ways to involve a population that took great interest in the school" (p. 344). However, this is not always the case. Effective school principals of low socioeconomic status schools seek to promote close home-school cooperation rather than buffer (Clark, Lotto & McCarthy, 1980), whereas some principals of upper-class schools may use buffering to respond to assertive and demanding parents (Goldring, 1986; 1990).

While the goal of increased parental participation is commonly accepted by both parents and educators, the issue of parental involvement may mean different things to different people (Ascher, 1988; Goldring, 1990; Williams, 1984). It can mean parents providing limited school support in the form of bake sales or bazaars, or communicating with parents by sending home notes or holding parent-teacher conferences. It can mean parents serving as classroom aides, accompanying a class on an outing, and assisting the school in other ways under the direction of the professional staff. It can mean sitting on school councils or task forces and making decisions regarding educational policy. And increasingly, it can mean parents initiating educational activities at home to increase the learning of low achievers: reading, helping with homework, playing educational games, discussing events, etc. (Ascher, 1988). An element common to all these meanings is a recognition of the need for continuity between the home and school (Ascher, 1988).

Despite the lack of agreement about what parent involvement means, studies show that at the preschool and elementary school levels, the more parents participate in a sustained way -- as a fund raiser, as a volunteer, as a decision maker, or as a home tutor -- the better the achievement of potentially low-performing students (Ascher, 1988; Willis, 1989). A well-planned, comprehensive and long-lasting approach to parent participation seems to be more important than the specific participation activity (Becher, 1984; Willis, 1989). However, there are so-called parent involvement activities, such as public relations campaigns, one-way communication devices, and "dog and pony shows" that are not effective in positively influencing the low achievers (Henderson, 1987).

Beyond the benefits of a well-planned and sustained parent-involvement program, studies indicate that preschool years are the most critical for parents to improve children's learning, especially for lower class students of color (McCall, 1981; White, 1975). Parent training in preschool intervention programs can produce immediate and long-range achievement gains (e.g., Goodson & Hess, 1975; Houston & Joseph, in press). Although similar parent impact programs for school-aged children have not been as thoroughly researched, regular home visits appear to be an important aspect of these programs (Tangri & Moles, 1987). The teacher-parent conference has also been shown to positively influence the achievement of poorly performing high school students and the attitudes towards mathematics of low-achieving second grade students (Buchanan, Hansen & Quilling, 1969; Dornbusch & Ritter, 1988).

While active parent participation is the ideal, parent contacts with school are often brief and infrequent (Melaragno et al., 1981). More than a third of the elementary school parents report never meeting with their children's teacher during the school year, and more than two-thirds say they never talked with their child's teacher on the telephone or volunteered at school (Ihejirika, 1990). When personal parent-school interactions do occur, they are usually limited to attending open houses or PTA meetings, where time for personal conversations is limited (Tangri & Moles, 1987; Williams, 1984). Similarly, written communication is often in the form of newsletters, bulletins, and flyers, which provide little opportunity for parents to respond (Melaragno et al., 1981).

Compared with other parent groups, urban low-income parents and parents of color tend to have the least amount of contact with their children's teachers and principal (Ascher, 1988). Many inner-city parents with less than a high school education report feeling awkward approaching school personnel and intimidated by the staff and the institutional structure of the school (L. Harris & Associates, Inc., 1987). These parents feel that schools are not run to benefit their children and that the school staff are apathetic or hostile to parent participation (Tangri & Moles, 1987). At the same time, educators perceive these same low socioeconomic parents as unable or unwilling to participate, and lament that those parents whose children tend to be low achievers, and who need extra help, are the hardest to reach (Ascher, 1988). Such perceived distance between parents and educators leads to each blaming the other for the academic and discipline problems of low achievers (Lightfoot, 1981).

The increasing number of parents whose native language is not English raises additional problems for educators trying to enlist parental support. Not only is language a barrier, making communication between parents and school personnel difficult, but also few of these families wish to participate in the American educational system. For example, Asian/Pacific- American parents are often unfamiliar with the concept of citizenship participation and tend to believe that schools have the expertise and right to make all decisions (Tran, 1982). Some Asian parents feel communication with school personnel is disrespectful because it gives the impression of checking up on the teacher (Yao, 1988). Similarly, Mexican-American parents of special education students were found to be less knowledgeable and less involved in their children's special education program than African-American or Anglo-American parents (Lynch & Stein, 1987). Mexican-American parents say "the teacher knows best" and that it is the school's job to make educational decisions. This belief is contrary to the special educational system's stated desire for joint decisionmaking and a strong home-school relationship.

Knowledge of the changing American family might also help explain the difficulty of generating active parent involvement (Houston & Joseph, in press). Current demographic trends which often limit parents' time for school involvement are a declining marriage rate, a rising divorce rate, a rising number of single-female-headed households, and an increasing number of dual-income working families (e.g., Ascher, 1988; Chavkin, 1989). The traditional stable couple with a working father, a housewife mother, and two school-aged children constitute only seven percent of today's American households (Hodgkinson, 1988). Latchkey children are becoming increasingly common and, instead of the parents assuming responsibility for their children, they delegate primary child care functions to others (e.g., grandparents, stepmothers/stepfathers, custodial mothers, a variety of paid helpers--Bastian et al., 1987). As a result, school personnel may assume that low-income, single, or working parents cannot be approached or relied on (Epstein, 1984), even though these parents express a desire for more contact with the children's teachers and principal (L. Harris & Associates, Inc., 1987).

Finally, at the secondary level, additional barriers to parental participation in the educational process of low achievers exist (Tangri & Moles, 1987). Parents' believe they have limited influence on their teenagers and report they lack knowledge about how to create a suitable role for their active school participation (Tangri & Moles, 1987). Logistical difficulties arise from multiple teachers for each student and from teachers often teaching more than 100 students per day (Moles, 1982). Low-achieving secondary students say they feel embarrassed or resentful when their parents come to school (Tangri & Leitch, 1982). Such negative student reactions to their parents' involvement may explain why an increased number of parent-teacher contacts is negatively associated with reading gains for poor readers at the middle and junior high school levels, while a similar increased number of parent-teacher contacts is positively associated with achievement gains for poor readers at the primary school level (Iverson, Brownlee & Walberg, 1981).

Summary and Themes Foreshadowed

In general, the research findings reviewed in this section suggest that schools are often places of failure and discouragement for low-achieving students. Although a few elementary and secondary schools perform well for disadvantaged and low achievers, the vast majority still do not make a difference (Cuban, 1989). While school improvement projects in districts are becoming commonplace nationwide, planned change can be slow, unstable, and short-lived (Miller, 1982; 1985). Further, exemplary schools are not uniformly effective throughout. For example, schools may be effective in the cognitive but not in the noncognitive areas; or they may be effective with most students but not with low achievers (Mortimore et al., 1988).

Persuasive research suggests that lack of academic success of low achievers is heavily influenced by an unproductive school culture (e.g., Brookover et al., 1979; Deal, 1985; Purkey & Smith, 1985). The school culture refers to commonly accepted understandings about "the way we do things around here" and it is based on a set of values about "how things should be." The culture of academically ineffective schools is characterized by, for example, a lack of clear goals and core values, conflicting cultural messages from home and school, low expectations for low achievers' success, homogeneous ability groupings in which low achievers' opportunability groupings in which low achievers' opportunities to learn are limited, disruptive student behaviors which impede learning of low achievers, and frequent (and often inappropriate) disciplinary actions which perpetuate disruptive student behavior.

A school culture evolves through human interaction and is shaped by the pattern of relationships, or social systems, within the school (Deal, 1985). For many low achievers, these patterns of interactions are characterized by a feeling that school personnel are uncaring and unconcerned about their lack of academic progress. Perhaps one of the best indicators of widespread student alienation is the dropout rate, which is alarmingly high, especially among African-American and Latino students. Poor academic achievement in combination with low socioeconomic status are most commonly associated with premature school leaving. Lack of involvement in extracurricular activities and school behavioral problems (e.g., tardiness, absenteeism, truancy, discipline problems) are also associated with the student alienation syndrome. Low achievers' act of rejecting school is often accompanied by the belief that school has rejected them. For these students, the process of dropping out may begin with consistently negative images concerning academic inadequacies, and the perception that the school's discipline system is both ineffective and unfair.

Some perceive the relationship between teacher and low-achieving student as a mutually reinforcing cycle of alienation. Typically, teachers work alone in the classroom, seldom interacting professionally with their colleagues. Teachers get their greatest rewards from working with responsive, high-achieving students; they withdraw and do less when working with low achievers. Low-achieving students who perceive teachers as uncaring withdraw from class, and make less and less effort to respond.

Often, colleagues form cliques and seem unwilling to work cooperatively to improve the performance of low achievers. If teachers work in isolation, neither helping nor being helped by others, then they cannot benefit from the experience of others. Many teachers also complain that the principal manages by fiat, and the faculty has little or no influence in decisions affecting their school.

The ideal image of the principal, teachers, and parents frequently interacting about instructional or other problems related to the low achievers rarely exists. Even though principals say they prefer to focus on instructional matters, most feel forced to devote a majority of their time to a myriad of meetings with people who have problems. Furthermore, teachers often perceive school administrators' behavior as self-serving, unsupportive of teachers, and unresponsive to the needs of low achievers. Finally, parents -- especially those who are urban, poor, African-American, or language-minority -- are often unable or unwilling to participate in school-related activities.

Given that most American schools are characterized by unproductive cultures and dysfunctional social relationships, many policymakers and practitioners are recommending that schools be fundamentally changed, or restructured, to improve the quality of education available to our nations's disadvantaged and other low-achieving students. Although specific restructuring approaches vary, restructuring proponents suggest that the general strategy might include some mix of shared decisionmaking, collegial work and increased teacher autonomy, a pedagogy of thinking and active learning, and strengthening of ties with parents and others in the community. From the school restructuring viewpoint, simply greasing the system "to do the same old thing with less friction..." is not enough to produce the caliber of reform needed by schools today (Lynn, 1987, p. 1).

The main challenge confronting those engaged in restructuring is to change the way large numbers of schools work. The next section describes current restructuring options as they relate to the challenge of widespread and wholesale school improvement.

SCHOOL RESTRUCTURING

After decades of attempts to reform American elementary and secondary schools, low achievers continue to attend schools and classrooms which have remained basically unchanged. Until recently, educational innovations have been intentionally designed to change practices only marginally, thus preserving the basic model of schooling (e.g., McDonnell, 1989; Mojkowski & Fleming, 1988). Hence, isolated teachers continue to teach 25 to 30 students in self-contained classrooms, spending most of their time lecturing, while major decisions about resources, curriculum, and educational standards are decided away from the individual school or classroom.

But today, school restructuring -- the fundamental redesign of the organization and method of schooling -- is gaining momentum (e.g., O'Neil, 1990b). The growing recognition by educators and the general public that traditional schooling does not adequately serve an increasingly large proportion of students has triggered actions aimed at ensuring that all students receive a challenging and appropriate education. The search for alternative ways to structure schools is motivated by concerns about the poor performance of students and an awareness of the changing nature of the workplace and its workers. Furthermore, reports of school faculties' sense of alienation and lack of commitment to teaching have added to the push toward finding alternative ways to structure schools (Firestone, Rosenblum & Webb, 1987).

While school restructuring has as its primary goal the best interests of all students, the educational and social welfare needs of at-risk, low-achieving children are high on the restructuring agenda and require the most innovative strategies

(Hawley, 1988). For restructuring to occur, efforts must focus on revising the nature of what is meant by "effective learning" and the technical division of labor within schools. Through such actions, restructuring proponents suggest that all students will become responsible citizens and productive workers in the next decades.

As indicated in the previous section of this book, low-achieving students are not adequately served by our schools. Currently, 4.2 million young adults, ages 16 to 24, have dropped out of high school before receiving a diploma (National Center for Education Statistics, 1989). While a majority of these dropouts are Anglo-American, the dropout rate is highest among the African-American and Latino populations. Even for all students who remain in school, standardized test scores show mastery of rudimentary skills, but only modest achievement in areas requiring complex thinking (e.g., Applebee, Langer & Mullis, 1986; Mullis & Jenkins, 1990). Also, American students' scores are low relative to those in other countries, for example, ranking 14th out of 17 countries in one international study of science achievement at the junior high school level (International Association for the Evaluation of Educational Achievement, 1988).

America's transition from an industrial to a post-industrial economy and its declining ability to compete in world markets has directed much attention to the link between education and employment (Johnston, 1990). While not traditionally required in lower level jobs, three types of employment skills are becoming increasingly critical for all American workers: a higher level of cognitive problem-solving skills, including learning how to learn; flexibility, or knowing how to perform a variety of tasks; and teamwork abilities, including the capacity to resolve conflicts (McDonnell, 1989). The most common curriculum and instructional strategies used to teach low achievers -- drill and practice, attainment of only minimal competencies, and students working in isolation -- are contrary to the problem-solving, active learning, and teamwork approach needed by the workers of tomorrow.

Furthermore, the workforce itself is changing. Of the 20 million new workers projected to enter the workforce between 1988 and the year 2000, 83 percent will be women, people of color, and immigrants -- those who our schools are educating most poorly (Hodgkinson, 1988). Only 15 percent of the new entrants will be native Anglo-American males, compared to 47 percent in that category today (Johnston & Packer, 1987).

When considering the twin problems of poor educational performance and the changing nature of work and workers, those aggressively pursuing an agenda for change say that nothing less than fundamental restructuring can create the type of school needed to meet these challenges (O'Neil, 1988).

Overview of Restructuring Approaches

There is no one concise, agreed upon definition of restructuring nor is there a definitive model that can be applied (e.g., O'Neil, 1988). There is however, agreement as to what counts as restructuring and what does not (Harvey & Crandall, 1988). Restructuring is not adding more of the same, tinkering around the edges, or even making significant improvements to the current structure. Typical school improvement initiatives and efforts to apply the school effectiveness research to schools in search of excellence do not, by themselves, constitute restructuring (Goodlad, 1984).

Some consider restructuring to involve altering a schools' pattern of rules, roles, and relationships in order to produce substantially different results from those schools currently produce (Corbett, 1990; Wilson, 1971). While this is only one definition, underlying all definitions and/or approaches to restructuring schools is the shared belief that the current system must be rethought and redesigned in order to be more effective (Harvey & Crandall, 1988).

Although opinions on what constitutes restructuring vary, five general restructuring approaches or options are currently being discussed in the education literature (Council of Chief State School Officers, 1989; David, Purkey & White, 1987; Elmore, 1988; McDonnell, 1989; National Alliance of Business, 1989b). These approaches are:

- Decentralize authority over schooling through strategies such as participatory school-based management and greater parental choice.

- Develop new professional roles and relationships for teachers aimed at facilitating collegiality, and providing leadership responsibilities for experienced, talented teachers.

- Change accountability systems emphasizing a pedagogy of thinking and active learning instead of a standardized test-driven curriculum of minimal competencies. Schools must have more discretion and authority to achieve results for which they are to be held accountable.

- Modify curriculum to promote the acquisition of higher order thinking for all students, but especially for the least successful students. Major revisions of curriculum content and process must be undertaken to make learning more challenging and engaging, and more challenging grouping arrangements must be encouraged.

- Foster school-community partnerships aimed at strengthening the links between schools and the larger community through formal alliances with parents, service and health agencies, businesses, and other institutions.

These options represent the broad array of ways in which schools are being restructured during the current era of reform. There is no one simple restructuring blueprint with specified elements and procedures, but rather multiple blueprints with various combinations of approaches which are often overlapping and interactive with one another (O'Neil, 1988). Since change is bound by its context, a school must be designed to achieve its individual mission within the community in which it finds itself (Fullan, 1982). Thus, restructured schools may look quite different from one another, reflecting different community realities, needs, beliefs, and values (Harvey & Crandall, 1988).

Despite variations in restructuring across schools, the most important criterion for judging the potential effectiveness of a particular reform should be its link to student achievement and other desirable student outcomes. The reformers' explicit goal of improved student learning must include fundamental abilities, but, more importantly, higher order thinking competencies which are often lacking in low-achieving students. Without applying the standard of improved student learning to restructuring decisions, reformers tend to focus solely on the means themselves and not on the desired student ends (Council of Chief State School Officers, 1989).

These five categories of restructuring strategies are examined below because of their potential impact on the two of Tagiuri's (1968) school climate dimensions -- culture and social system -- which have been discussed as most relevant to academic outcomes for low achievers. These restructuring approaches are discussed roughly in the order of their prominence in the current school reform dialogue.

Decentralized Authority

Critics of public schools say that they are over-bureaucratic, over-centralized, and unduly constrained by standardized rules and procedures (O'Neil, 1990b). School-based management and family choice of schools have been proposed as mechanisms for devolving decisionmaking authority to school sites and individual parents. These strategies assume that the system's poor performance is largely due to the way public schools are organized. They also assume that when district and school structures are altered, schools become more flexible and more responsive to the unique needs of the low achiever and other students whose needs are not being adequately met (Council of Chief State School Officers, 1989). In this way, schools will become more productive.

1. Participatory School-Based Management

School-based management has caught the attention of researchers, policy makers, and practitioners who are interested in improving schools for the low achiever (e.g., Guthrie, 1986). While variations of the school-based management concept have emerged, its most fundamental feature is the delegation of control over resources to individuals at the local school level (Marburger, 1985). This decentralization usually means that the school staff have greater authority over decisions affecting the schools' budget, personnel, and curriculum (David, 1989; Clune & White, 1988; Lindelow, 1981; White, 1989). In practice, however, the distinction between these three categories is sometimes blurred (e.g., staffing is by far the largest part of the school's budget) (David, 1989). Some schools have decisionmaking prerogatives in only one of the three areas, while other schools have either limited or considerable control in every area (McDonnell, 1989).

Where schools have school-site budgeting and accounting, each school is credited with a given sum per pupil and with a certain number of instructional units (e.g., one unit for every 20 students) based on its enrollment (Guthrie, 1986). An instructional unit is a sum of money equal to the average teacher salary in the district. How a school allocates its instructional units is determined by the principal, perhaps in consultation with faculty and parent representatives. For example, a school may decide to use an unallocated instructional unit to hire new staff or to finance experiential learning projects to benefit low achievers. The point is that individuals at the school level can decide how the money will be spent, usually given the guidelines established by state law and district policy.

If a school has control over personnel decisions, administrators (perhaps in conjunction with teachers and parents) decide who to hire and how to distribute full-time and part-time positions (White, 1989). Advocates of school-based management argue that if school personnel are involved in hiring decisions, they will select like-minded staff who reflect their own values, goals, and objectives (Rosenholtz, 1985). Hence, a school staff intent on improving the performance of low achievers would select experienced and talented teachers interested in teaching low achievers.

Under school-based management, the primary difference is that school staff, instead of district staff, initiate and lead the curriculum development efforts (Guthrie, 1986). Staff can select or create instructional materials and methods, and develop curricula that are most appropriate to the needs of the low achiever (David, with Purkey & White, 1987; Knight, 1985). To date, school-level attempts to change the organization of instruction have given rise to the most innovative use of school-based management (McDonnell, 1989).

Under school-based management, authority to make changes in areas beyond those explicitly designated is typically granted by some type of waiver process (Mojkowski & Fleming, 1988). This waiver process is usually the result of agreements between the district and teachers' organizations (Mojkowski & Fleming, 1988), but, in a few cases, districts may have agreements with their states regarding waivers from state rules (David, 1989). Waivers allow for more flexible responses to the characteristics and needs of low-achieving students (Mojkowski & Fleming, 1988).

School-site management is not a new phenomenon (e.g., Guthrie, 1986; Mojkowski & Fleming, 1988). Its antecedents may be found in demands for decentralization and community control of schools in the 1960s, as well as in school-based management proposals intended to offset the centralizing effects of equity-based school finance plans in the 1970s (Cistone, 1989; Guthrie, 1986). The earliest proponents of school-based management believed that administrative efficiency would be increased and an expanded state role offset by giving local schools greater decisionmaking authority (David, 1989; Guthrie, 1986). Since the late 1980s, however, proponents are focusing on bringing about significant change in educational practice to empower school staff to create conditions in schools that facilitate improvement and innovation (Goodlad, 1984). Thus, the key issue for school-based management today is not simply how to decentralize decisions to the school level, but how to achieve management through the participation of the schools' teaching staff and possibly parents (Conley & Bacharach, 1990). This is most often achieved by creating a central decision-making body (variously known as a board, cabinet, committee, council, or team) comprised of the principal, and representatives from the faculty and sometimes from the community (e.g., Cistone, 1989; David, 1989; Lindquist & Mauriel, 1989; Marburger, 1985)

The school effectiveness literature supports the need for school personnel to play an important role in school-level decisionmaking (Purkey & Smith, 1983). Although a direct link between participatory school-based management and school learning is not clearly established, restructuring proponents infer that shared decisionmaking is an effective way to create facilitating conditions for learning (Levin, 1988). As described previously, these conditions include clear goals and core values; high expectations; an orderly, disciplined environment; a sense of community among students, teachers, administrators, and parents; and collegiality among the school's professional staff.

Educational change studies also support the concepts of school-level autonomy and participatory decisionmaking (e.g., Fullan, 1982; Lieberman, 1990). Any attempt to introduce change into a school must confront the existing school culture and its commonly held understandings about what is and ought to be (Corbett, 1990). Scholars of school change recognize that school improvement activities require a process of mutual adaptation, whereby the local site adapts innovations emanating from the outside in order to meet its own needs, norms, and practices (Berman & McLaughlin, 1978). Hence, instead of trying to make schools more uniform, restructuring proponents argue that each school must be allowed to decide how to organize itself, and how to adapt outside policies to its school culture and idiosyncratic set of problems.

2. School Choice

Another decentralizing strategy aimed at improved learning focuses on the right of parents to choose the school which their child will attend. The concept of choice is applied to a wide variety of models: open enrollment, controlled choice, magnet schools, alternative concept schools, charter schools, and unzoned schools (Association for Supervision and Curriculum Development, 1990; Council of Chief State School Officers, 1989).

Four key hypotheses underlie the concept of public school choice (Council of Chief State School Officers, 1989; McDonnell, 1989). First, if parents have the option of leaving schools that do not reach certain standards, schools will become more responsive. Second, educators will attract enrollment by providing a wider range of educational options and, thus, creating choices for parents and students. Third, if schools are more responsive, parents will become more actively involved in school activities, students will work harder and thus learn more. Fourth, choice will create a quasi-market system which will force poorly performing schools to improve or disappear. Although competition may motivate schools to be more responsive to parental preferences, many schools' ability to be responsive will be limited by their lack of resources (i.e., the type of teachers, instructional materials, and class size they can afford) (McDonnell, 1989).

No empirical tests of these premises have been undertaken -- for example, by systematically comparing schools of choice with conventional schools on dimensions such as student effort and performance, or parental satisfaction and involvement (Elmore, 1986). Hence, critics contend that a direct causal relationship between choice and student academic performance has not been established (Elmore, 1986). Conversely, some advocates point to correlational evidence of the success of individual choice programs and the positive effect on low achievers (Paulu, 1989). Additional evidence in support of school choice comes from studies assessing alternative schools as magnets and from research comparing public and private schools.

Proponents of choice often cite the overall increase in test scores in Manhattan's Spanish Harlem as evidence that students will benefit from programs that use choice effectively (Raywid, 1989). In 1972, less than 15 percent of East Harlem students read at grade level, and the district ranked last in reading achievement among New York City's 32 districts. Almost 60 percent of these students fell below the poverty line. In 1989, after introducing school choice, 64 percent of the students read at or about grade level, and in recent years, the district's ranking has ranged from 20th to 16th (Paulu, 1989).

Similarly, a 1983 study of 45 magnet schools, sampled from a population of more than 1,100 magnets, found that these schools produced consistently higher attendance rates, fewer behavioral problems, and lower suspension and dropout rates than comparable non-magnet schools (Blank, 1984). In a subsequent study, the typical magnet school was found to have higher achievement levels than non-magnets (Blank, 1989). However, it is unclear whether magnet programs increase student achievement or whether they simply concentrate academically motivated students in a few schools, leaving less motivated students in traditional schools. Significant stratification of students by race, income, and academic achievement were uncovered in one study of high school enrollment patterns in four major cities -- New York, Chicago, Philadelphia, and Boston (Moore & Davenport, 1989).

Comparisons of public and private schools have also shed light on the effects of choice. For example, the High School and Beyond (HSB) study (National Center for Education Statistics, 1982) found that students enrolled in Catholic schools outperform their public school counterparts on standardized tests of reading comprehension, vocabulary, mathematics, and writing (Coleman & Hoffer, 1987; Coleman, Hoffer & Kilgore, 1982). The HSB data indicate that Catholic schools are more effective than public schools in raising the academic achievement of student groups that traditionally perform at lower levels: African-Americans, Latinos, students from low socioeconomic status families, and those from families with little parental support. Furthermore, students from Catholic schools are more likely to attend a four-year college and less likely to dropout of college than public school students (Coleman & Hoffer, 1987). However, these findings can be explained by the limited amount of tracking in Catholic schools and the higher likelihood of Catholic school students being enrolled in academic programs (Coleman & Hoffer, 1987).

Researchers have found that private schools consistently show higher teacher morale; higher expectations for academic performance on the part of teachers, students, and parents; and greater control over key resources that support learning (Chubb & Moe, 1985 as cited in Association for Supervision and Curriculum Development, 1990). However, simple comparisons of public and private schools may underestimate the enormous variation in quality among schools generally (Association for Supervision and

Curriculum Development, 1990). If variations within types of schools are greater than differences between these types, then it is more important to know which school within a particular sector the student attended than to know whether the school was public or private (Murnane, 1984).

Finally, although the data are very limited, choice plans appear both to retain potential dropouts and to bring back former dropouts by making schooling more relevant or more directly related to students' employment interests (Wehlage et al., 1989). Studies have found that low achievers can make remarkable gains when moved to effective alternative schools; in many instances, low achievers' academic records, behavior, attendance, and attitude toward school all improve (Foley & McConnaughy, 1982; Wehlage et al., 1989).

Much opposition to school choice exists. Serious questions remain about whether school choice plans exacerbate racial and social class inequality (Council of Chief State School Officers, 1989). Choice policies tend to have negative impact on children of parents who are inactive choosers (i.e., often parents who are uninformed, disproportionately poor, and of color), since these children remain in schools where staff, resources, and better students have been siphoned off to academically selective schools (Levin, 1987b; Moore & Davenport, 1989). Furthermore, where choice programs involve competitive admissions, imposed ethnic quotas, or even set enrollment limits, students of color and from lower socioeconomic status backgrounds tend to have unequal access to different types of schooling opportunities (McDonnell, 1989). In order for choice plans to support equal access for low-achieving students, they must permit student assignment irrespective of past academic performance and behavior, help parents select from among various programs, and provide free student transportation within a reasonable geographic area (Nathan, 1988).

Taken as a whole, the findings on school choice do not support an unqualified contention that "choice works," or that choice benefits low achievers. More likely, choice is related in a complex way to a host of school culture and social system factors that distinguish high and low-performing schools. Therefore, choice should be promoted as a way to build support for public schooling, and to increase parental satisfaction and student engagement (Council of Chief State School Officers, 1989). Since the nature of the relationship between public school choice and improved student achievement is unclear, arguments in favor of choice as a solution to the problems of low achievers raise unrealistic expectations on the part of parents and the general public (McDonnell, 1989).

New Professional Roles and Relationships

Some scholars, policymakers, and leaders of education organizations suggest that the solution to the dual problems of poor achievement and shifting workplace requirements is increased teacher professionalism (e.g., Shanker, 1986; Council of Chief State School Officers, 1989; Lieberman, 1988). Restructuring proposals to strengthen teacher professionalism usually include three components: a differential staffing structure giving teachers expanded leadership roles; greater teacher collegiality, autonomy, and decisionmaking; and rigorous entry standards controlled by the profession -- a topic beyond the scope of this document (Darling-Hammond, 1988; McDonnell, 1989). The major reason for creating a profession of teaching is to increase the probability that all students, but especially those who are most difficult to teach, will be well-educated because they are well-taught by highly skilled and motivated teachers (Darling-Hammond, 1988).

As a strategy to restructuring schools and to improving learning for low achievers, professionalism means greater teacher autonomy and the ability to exercise their own best judgment. Rather than focus on district rules and procedures, teachers as professionals structure learning to center on the collective and individual needs of the students in the classroom (Council of Chief State Officers, 1989). In doing so, teachers seek out and use appropriate professional practice based on educational research and professionally accepted knowledge.

Differential staffing and other efforts designed to drive improvement in the work of teachers are directly related to the new professional roles for teachers. Innovations such as career ladders and merit pay use financial incentives to change what teachers do (e.g., paying teachers who do a better job and take on extra duties, and trying to insure that exemplary teachers are more involved in decisionmaking and teaching) (Rosenholtz, 1986). However, the success of career ladders and incentive pay are often mixed and ambiguous. For example, evaluators of the well-known career ladder effort in North Carolina report gains in achievement, but acknowledge the difficulties of attributing these gains to the districts' career development plan (Schlechty, 1988b). Similarly, South Carolina's widely known School Incentive Reward Program (i.e., a state program which gives monetary rewards to schools meeting certain criteria, such as achievement gains and improved teacher attendance) reports increased student achievement as a part of the total education reform package of which incentive rewards is only one part (Council of Chief State School Officers, 1989).

Efforts to transform teaching from an occupation to a profession is an integral part of school-based management with a strong teacher decisionmaking component (Darling-Hammond, 1988). For those advocating school restructuring, school-based management means that teachers have a right to participate in decisions about how the budget is spent, who to hire, and what to teach (e.g., David, 1989). The rationale for a greater teacher decisionmaking role is that better decisions are partially a product of fuller and, therefore, better information; better information comes from soliciting input from those closest to the student (Clune & White, 1988; Purkey & Smith, 1983). In addition, participatory school-based management is based on the assumption that change requires ownership that comes from the teachers' opportunity to define change and their flexibility to adapt it to their specific teaching circumstances (e.g., Fullan, 1982; Purkey & Smith, 1983).

In the context of school-based management, the purpose of shared decisionmaking is to alter traditional structures of authority by creating new roles among teachers and between teachers, administrators, parents, and students (Conley, 1989; White, 1989). Restructuring seeks to disrupt current relationships and to replace them with a new set which will enable schools to function more effectively (Corbett, 1990). This disruption and/or creation can be accomplished by focusing on the schools' rules which transmit knowledge about what is and ought to be (Corbett, 1990; Wilson, 1971). Concomitantly, restructuring concerns the establishment of new or extended role expectations, such as being willing to work in significantly different ways to deal with problems experienced by students in their home, community, or peer group (e.g., Wehlage et al., 1989).

As with other restructuring approaches, the assumed link between teacher professionalism and improved student outcomes is indirect. Restructuring proponents assume that professional teaching conditions will increase the teacher's satisfaction about work, and that increased teacher satisfaction will lead to better teaching, hence better student learning (e.g., Darling-Hammond, 1988; Louis & Smith, 1989).

Inferences from the school effectiveness literature provide hints as to how improved teaching conditions positively impact the learning of low achievers. The ability of teachers to shape decisions is commonly associated with cohesiveness of a school and improved teacher morale, self-esteem, and efficacy (Rutter et al., 1979; Wehlage et al., 1989; White, 1989). Staff participation gives teachers the collective opportunity to develop ideas about what is important to emphasize in teaching low achievers, and it opens communication channels (White, 1989). When teachers are given more decisionmaking power, they are required to exercise judgment and choice; in doing so, they become aware of themselves as causal agents in their own performance and in the performance of low-achieving students (Rosenholtz, 1989b). Conversely, a lack of decisionmaking authority is frequently associated with teacher dissatisfaction, absenteeism, and leaving the teaching profession (Chapman & Hutcheson, 1982; Miskel, Fevurly & Stewart, 1979; Rosenholtz, 1989a).

Emerging teacher professionalism also has direct implications for the role and work relationships of the principal. There is nearly universal consensus in the effective schools literature that in order to improve the achievement of low-performing students, the principal needs to play a major (though not always exclusive) role in providing instructional leadership (e.g., Edmonds, 1979; Leithwood &

Montgomery, 1982; Cohen, 1987). With the advent of teacher professionalism, however, the principal's role has shifted from one of traditional administrator to visionary and leader of leaders (Peterson, 1990; Schlechty, 1988a).

In the restructured school setting, principals need to develop additional skills in such areas as teacher involvement, shared decisionmaking, management of human resources, facilitation of professional growth, and evaluation of professional teams (Rosow, 1989). While some principals adapt well to these role changes, others are frustrated because they do not know what is expected of them or resentful because they perceive teacher professionalism as encroaching on their jobs (White, 1989). Similarly, role ambivalence exists for district-level administrators who, with school-based management, are now supporting rather than directing school improvement efforts (Harrison, Killion & Michell, 1989; Peterson, 1990).

Accountability Systems

A fundamental notion of public school accountability is that information about financial accounts, student attendance, curricula, and test results will be useful to policymakers and practitioners who demand or effect school improvement (Council of Chief State School Officers, 1989). In fact, however, this has not generally proven correct. Current accountability measures and methods fail to support the type and quality of schooling necessary to prepare all students, but especially low-achieving students, for a responsible and productive adulthood (O'Neil, 1990b).

Under the paradigm shift to restructured schools, the view of teachers as professionals and active participants in the school's decisionmaking process is embraced through school-based management. According to this paradigm, professional educators are obligated to do what is best for their students, not what is mandated, easiest, or most expedient. Similarly, educators are obligated to base these decisions on available knowledge, coupled with the unique needs of the individual (Darling-Hammond, 1988). This shift to client-oriented and knowledge-based practice has signaled a fundamental shift in accountability. Instead of a top-down, bureaucratic management approach, a new guiding principle for school accountability is to grant educators greater authority and discretion to achieve results, and hold them accountable for these results (e.g., O'Neil, 1990b). This exchange of greater local autonomy for improved student performance values the practitioners' competence and effectiveness, rather than their ability to follow standard operating procedures (Darling-Hammond, 1988).

Yet, most of today's initiatives for defining accountability standards remain at the state level, suggesting that the two types of reform -- state-oriented or top-down reform and the locally oriented or bottom-up reform -- are contradictory movements (Wise, 1988). State-level accountability mechanisms can be powerful levers for changing the behavior of teachers and principals. Available evidence suggests that educators take the reporting of accountability data very seriously, and alter their teaching to improve student performance on whatever indicators government officials stress (e.g., Brown, 1989; Darling-Hammond & Wise, 1985). The problem is that even in those states where a variety of performance data are collected, only student achievement is stressed as important and, in most instances, tests focus on the basic skills (Darling-Hammond, 1988; Kysilko, 1988; Wise, 1988). Consequently, the indicators currently influencing school practice are not only test-driven, but also focused on low-level cognitive work (Kysilko, 1988). In many schools, this leads to narrowing the curriculum to meet the demands of the state test, and to ignoring the type of thinking abilities needed by students to function effectively in the workplace of tomorrow (Nickerson, 1989; Shepard, 1989).

In addition to focusing on basic competencies, standardized test scores carry inordinate weight and can cause low-achieving students to be improperly tracked, denied access to special programs and scholarships, or labeled deficient (Wang, Reynolds & Walberg, 1988). This practice is especially alarming, since standardized tests are culturally biased in favor of Anglo-American, middle-income students, and, hence, discriminatory against students of low socioeconomic status and students of color (e.g., Miller-Jones, 1989; Oakland & Parmelee, 1985). Furthermore, standardized tests only measure the specific content students know, but not what they can do that knowledge (Wiggins, 1989).

Alternative assessments -- often called performance or authentic assessments -- seek to measure directly the students' ability to perform in the subject area (Shepard, 1989; Wise 1990). For example, if the goal were to test public speaking ability, the test would ask students to deliver a speech. In this way, alternative assessment measures are designed to resemble tasks as closely as possible. Thus, practice for alternative assessment tests no longer narrows the curriculum, since preparation for the test constitutes useful learning (Shepard, 1989). Furthermore, alternative assessments demand that students demonstrate real competence, not just the ability to recognize the correct answer to a contrived question. Such assessment makes it possible for educators to examine the students' thinking processes as well as their answers (Wiggins, 1989). The most often discussed alternative assessment options are essays, open-ended questions, hands-on experiences, portfolios, and culminating exhibitions (Willis, 1990).

Alternative assessment serves the goal of greater teacher professionalism by allowing teachers to play a central role in designing, administering, and scoring assessment tasks (Darling-Hammond, 1988). Since alternative assessment encourages teachers to probe the low achiever's mind to determine what it knows and can do, alternative assessment provides teachers with better diagnostic information about the student's thinking processes. Unlike the current conditions with standardized testing, the reasons for the student's lack of achievement can be better determined with alternative assessment. Thus, results of the test are less likely to be misleading (Wiggins, 1989).

Proposed changes in the assessment of teachers are also a part of the restructuring strategy. Those espousing teacher professionalism argue that teachers should define, transmit, and enforce standards of practice and norms of professional conduct (Darling-Hammond, 1988). Through peer review and other mechanisms, the profession should then enforce those standards, thus ensuring professional accountability (Darling-Hammond, 1986).

Even if test developers overcome the technical difficulties surrounding student and teacher assessment, the basic question -- Who should be held accountable? -- must be resolved before accountability can be used as a tool for restructuring (Glickman, 1990). Where significant authority has been devolved to the school level, how much responsibility should state governments, local districts, and individual teachers and principals bear for student outcomes? How much authority should the teaching profession be given to define and enforce standards? Furthermore, a second basic question -- To whom are schools responsible? -- must also be grappled with. Those who favor school-based management and choice assume the greatest accountability is to students and their parents. But, clearly there are other stakeholders. Employers, state and local taxpayers, ethnic groups, and institutions of higher education all have vested interests in well-educated and economically productive graduates.

Curriculum

In discussions of educational reform, the concept of embeddedness is a useful metaphor (Crowell, 1989). For example, embedded in school climate is the school curriculum -- what is taught and how it is taught. As discussed previously, teaching is embedded in learning, and the student is embedded in the teacher, since one is incomplete without the other. Most educational reformers recognize that a restructuring approach which ignores curriculum reform and the quality of instruction is inadequate.

Those calling for curriculum restructuring assume that much of the problem of poor educational performance is due to content which does not convey the skills and knowledge that students will need to satisfy college or career prerequisites (Austin & Meister, 1990; O'Neil, 1990b). More than any other restructuring option, strategies aimed at curricular content are most directly related to the problems of the low achiever (McDonnell, 1989). These strategies are designed to move instructional emphasis beyond basic and routine abilities, which are often the sole focus of instruction for low achievers, to higher levels of thinking and understanding.

1. The Content

Based on an analysis of national reports issued in each of the core subject areas, current curricular reform efforts have four common elements (Kysilko, 1988; Lewis, 1990; Johnston, 1990; McDonnell, 1989; O'Neil, 1990a).

First, and perhaps most prominent, is the recommendation to go beyond the transmission of inert facts, and to eliminate heavy emphasis on low-level competencies as measured by standardized tests. Instead, curriculum should support students' ability to think critically and creatively, and to solve problems.

This recommendation is supported by cognitive science research which demonstrates that the kinds of activities traditionally associated with thinking are not limited to advanced levels of development, but are an integral part of elementary school reading, mathematics, and other subject areas (Newell & Estes, 1983; Resnick, 1987). This research disputes the notion that all learning is hierarchical, and that students need to learn low-level skills before learning more complex ones (Guthrie, 1989). Thus, teaching-thinking advocates argue that omission of higher order skills, and an over-emphasis on drill and practice skills is inappropriate and largely responsible for the poor record of many remedial programs for low achievers (Pogrow, 1990).

Despite emphasis on the teaching of thinking, a minority viewpoint faults such reform proposals for being skills-heavy and knowledge-light (Cheney, 1987; Hirsch, 1987). This argument suggests that lack of attention to content produces students who have real gaps in their knowledge, and who cannot share in our nation's common culture (Hirsch, 1987). However, the distinction between higher order thinking skills and factual knowledge is less of a dichotomy than a continuum, since proponents from each approach recognize that both are necessary for students to be truly educated (Presseisen, 1988). Furthermore, educational psychologists have demonstrated that knowledge in a content area plays an important role in thinking, reasoning, and learning (Resnick, 1987).

A second commonality shared by curriculum reform plans is the recommendation that teachers address fewer subjects and in greater depth, instead of covering many topics superficially (e.g., American Association for the Advancement of Science, 1989; Mathematical Sciences Education Board 1990; National Commission on Social Studies in Schools, 1989). Several national curriculum proposals envision students focusing on only a dozen or so substantial topics from kindergarten through twelfth grade, but exploring them more comprehensively and from many different perspectives (e.g., American Association for the Advancement of Science, 1989).

This recommendation is based on evidence that many of the highest achieving countries organize their mathematics and science curricula very differently than does the United States (McKnight et al., 1987). For example, at the lower secondary level, Japan's mathematics curriculum emphasizes algebra; and France's and Belgium's curricula are dominated by fractions and geometry. In contrast, the United States allocates its curricula in mathematics more equally across a variety of topics.

"Integration is...hot, disciplinary specialization is not" (Johnston, 1990, p. 225) is a third feature shared by these innovative curriculum plans. One integration effort is the writing and reading-across-the curriculum movement, where it is suggested that reading, writing, syntax, and semiotics be taught as a whole, rather than as discrete skills (Kline, 1988). A second effort endorses a softening of rigid boundaries between the disciplines, when appropriate to help students understand the connections among the subjects they learn. For example, science educators are recommending changes that will eliminate the dominance of stand-alone secondary science courses, which often make no effort to link content among the courses (American Association for the Advancement of Science, 1989). Instead, the newly-proposed curriculum organizes content so that concepts from each scientific discipline are taught each year, progressing from descriptive (often through "hands-on-inquiry") to abstract -- a common approach in other countries.

The final commonality running through the new curriculum reforms is the emphasis on integrating the practical and the academic. The emphasis is that academic learning should be inquiry-based, and that practical or vocational training should not be divorced from conceptual learning. For example, to enlarge the pool of students eventually entering science careers and to create a more scientifically literate populace, curriculum experts recommend that teachers focus classroom discussions on real life issues, and encourage students to integrate concepts from various disciplines (American Association for the Advancement of Science, 1989).

The curriculum reform being proposed by national panels of experts may be perceived as a top-down approach to educational reform, and, thus, in direct conflict with the bottom-up philosophical underpinnings of the other restructuring strategies. In reaction to previous expert-driven attempts at curriculum reform, teachers have taken a traditional stance, and have strongly challenged the experts' beliefs about curricular content and processes (Deal, 1985; Leming, 1989). As a result, curricular innovations over the past several decades have had minimal, if any, effect on classroom practice (Houston, 1988). The fact that the new curriculum is scientifically sound, or that it is likely to increase student achievement, will not ensure its widespread use in schools (McDonnell, 1989). What is important is that teachers are willing to adapt centrally developed curriculum to their own teaching situation, and, in doing so, develop a sense of ownership (Fullan, 1982).

2. The Process

The typical instructional arrangements in schools today are more appropriate for teaching students basic skills than for helping them acquire more complex cognitive skills. Thus, a second aspect of curriculum reform seeks to alter the process of classroom instruction. Some of these proposals focus on the use of instructional time. Recommended changes are extending the school day (e.g., Levin, 1988), school year (e.g., Ballinger, 1988), and restructuring the daily schedule to be more flexible (e.g., Canady, 1988). Restructuring proposals also focus on changing how teachers teach students, especially low achievers -- a topic which was written about in other resource documents in this series (Smey-Richman, 1988, 1989b).

The call for elimination of the current tracking system is perhaps the most far-reaching proposal associated with curriculum reform today (Braddock & McPartland, 1990; Swartzbaugh, 1988). As discussed in the first section of this book, arguments against tracking usually emphasize that low-ability-grouped students often receive unequal shares of key aspects of the learning environment. Differential learning opportunities resulting from differences in the curriculum, quality and pace of instruction, expectations for learning and behavior, and the experience and effectiveness of the teachers are cited as reasons for the widening gap in achievement between students in the top and bottom levels over time (e.g., Braddock & McPartland, 1990; Goodlad, 1984; Oakes, 1985; Sinclair & Ghory, 1987).

The ungraded or mixed-age school is favored by some experts as an alternative to tracking (Braddock & McPartland, 1990; Cohen, 1989b; Schlechty, 1989). In ungraded schools, instruction is based on the continuous progress model, which permits students to advance from one concept skill level to the next, as they are ready, regardless of their grade or age (Braddock & McPartland, 1990; Katz, Evangelou, & Hartman, 1990). Research evidence from the 1970s indicates the ungraded model is particularly beneficial for males, low achievers, students of color, and low-income students. (Goodlad & Anderson, 1987). Furthermore, leadership and prosocial behaviors have been observed to increase in multi-age groupings. However, the amount of current hard data on the topic is limited, and what exists (Katz, Evangelou & Hartman, 1990) is inconclusive (Miller, 1989).

As with other curriculum changes, whether or not tracking is eliminated or modified will greatly depend on the acceptance of this recommendation from experts at the local school level. Many scholars and policymakers have called for a decrease in tracking, but teachers and parents have tended to resist these proposals (Oakes, 1985; McDonnell, 1989).

School-Community Partnerships

Strengthening alliances with parents, social service agencies, businesses, and others in the community is a final restructuring option. This strategy recognizes that schools are asked to compensate for the effects of poverty (e.g., hunger, inadequate health care, child abuse, delinquency, drug addiction, teenage pregnancy, suicide) which are not of their own making (Pinkney, 1985; Rittenmeyer, 1986). While poverty-related problems are disruptive to the educative process and impede students' ability to learn, even the most effective schools can not overcome the effects of these conditions alone (Williams, 1987). This restructuring option advocates that educators work cooperatively with others in the community to promote academic performance of disadvantaged low-achievers, and to provide supportive services for our nation's children.

1. Parents as Partners

As discussed in the previous section of this document, parent involvement in their children's formal education tends to improve the academic performance of potentially low-achieving students (Ascher, 1988; Willis, 1989). While parent participation may take a variety of forms, some research suggests that parent involvement in shared decisionmaking is the most powerful approach of all (Leler, 1983). According to a recent survey, the most promising parental involvement programs include such decisionmaking activities as joint planning, goal setting, defining roles, program assessing, developing instructional and school support efforts, needs sensing, and setting of goal standards (Williams & Chavkin, 1989). As is the case with teachers, involving parents in school decisionmaking enables parents to develop a sense of ownership and pride in schools' efforts to enhance the success of all learners (Fullan, 1982; Williams & Chavkin, 1989).

Some school restructuring proponents advocate a school-based management model which brings together parents, mental-health specialists, and school staffs. Advocates of this approach maintain that positive interaction between parents and school staff is necessary to promote the type of psychological development in students which encourages school bonding and, thus, improved academic achievement (Comer, 1986). Unlike other reforms that ignore interpersonal relationships, this school-based management approach assumes that students are unequally prepared to perform as the school expects, since differentiated home and school experiences affect students' psychological development (Gursky, 1990). Two examples of this model -- the Stay in School Partnership Project and Comer's School Development Program -- are described in the final section of this book.

2. Collaboration with Social Service Organizations

A second set of proposals for linking schools with the community centers on the degree to which those who provide schooling can coordinate their efforts with those who provide human services (Cohen, 1989a). This approach recognizes that the interlocking effects of deprivation cannot adequately be addressed by schools and service organizations which essentially function in isolation from one another, and which, because of their specialized nature, are unable to perceive the child or family unit as a whole (Levy & Copple, 1989). To illustrate this point, Hodgkinson (1989) writes:

> It is painfully clear that a hungry, sick or homeless child is by definition a poor learner, yet schools usually have no linkages to health or housing organizations outside those run by the schools themselves. (p. 1)

Advocates of school and social service alliances argue that professionals in both sectors are overworked and frustrated by being unable to meet the needs of our nations' most troubled youth (Cohen, 1989a; Hodgkinson, 1989). Reflecting the growing sense of urgency, the first-year evaluation of the Joining Forces project sponsored by the National Association of State Boards of Education reports that nearly every state has initiated some level of interagency collaboration, and selected school districts across the nation have launched pilot projects to foster collaboration on issues ranging from child abuse to child care (Levy & Copple, 1989). However, many of the best examples are limited in scope and difficult to document because the programmatic outcomes may take several years to manifest themselves (Schorr with Schorr, 1989).

To have a lasting impact on our nations' disadvantaged children, advocates of a collaborative services model suggest that the various people-serving systems must fundamentally change both the way they operate and the way they relate to one another (Levy & Copple, 1989). However, several unanswered questions remain about how to integrate vastly different bureaucratic organizations, what the focus should be, and where schools best fit into the picture. Many believe schools should be at the hub of these collaborative efforts, since no other agency comes in contact with or is as well equipped to serve all children as schools (Cohen, 1989a).

3. Partnerships with Business and Other Institutions

Partnerships in which schools join with businesses and with other institutions, such as universities or cultural organizations, have become a popular approach to school improvement in the 1980s (Merenda, 1989). Since 1983, the number of schools reporting partnerships has risen from 17 to 40 percent of all schools (Heaviside & Farris, 1989). Today, there are more than 140,800 education partnerships operating nationwide, and 60 percent of these are sponsored by the private sector (Face of

School-Business Links Changing, 1989).

The structure of business-school partnerships range from the modest adopt-a-school program to broad scale efforts, in which communities develop citywide, business-education partnerships. For example, the much heralded Boston Compact is a centrally negotiated agreement among the Boston Public Schools, the area's major businesses, local colleges and universities, and the building and trade unions (National Alliance of Business, 1989a). In this agreement, the business community promises priority hiring for city high school graduates in return for the district's pledge to improve such measures as the dropout rate, student attendance, student achievement, and college placement (National Alliance of Business, 1989a; MacDowell, 1989). Boston businesses help tutor students, provide summer employment, make in-class presentations, provide mentors for at-risk students, and are on call to meet the needs of Boston schools (Farrar & Cipollone, 1988). Positive results so far include increased average daily attendance (from 75 percent in 1982 to 85 percent in 1987) and improved standardized achievement scores in reading and mathematics, although they still are well below the national norms (Farrar & Cipolline, 1988; National Alliance of Business, 1989a).

As is true in Boston, the most common form of partnership elsewhere is the use of volunteers from corporations who serve in classrooms under the supervision of paid school personnel (Merenda, 1989). In addition, school-business partnerships tend to provide assistance to schools in four other major domains (National Alliance of Business, 1987). First, policy partnerships are collaborative efforts among businesses, schools, and public officials aimed at bring about substantive changes in legislation or governance. Second, partnerships in systematic educational improvement focus on identifying needed reforms and working to implement the reforms. Third, partnerships in management provide school officials with management support in, for example, labor-management relations, strategic planning, or finance. Finally, partnerships in teacher training and development provide educators with opportunities to update or upgrade skills, or to learn about labor markets in the community.

Generally, partnership arrangements are designed to be mutually beneficial for the school and sponsor (Heaviside & Farris, 1989). The bottom line for business is productivity at a cost commensurate with the competition, both national and international (Merenda, 1989). Business sees collaboration as a way to improve the future work force, to enhance their corporate image, and to minimize future expenditures for welfare benefits to the unemployed (MacDowell, 1989). From the school perspective, reasons for participation in partnerships include expanded resources, a broader support base from the community, and future employment opportunities for graduates (MacDowell, 1989).

Despite their proliferation, it is not yet clear how much students -- particularly low achievers, disadvantaged, and students of color -- benefit from school-community partnerships. Although data from exemplary programs such as Stay in School Partnership and Comer's School Development Program show impressive changes in students' behavior and gains on standardized test scores, evidence of improved student outcomes is usually spotty or anecdotal (McDonnell, 1989). It is especially difficult to determine the student effects of school-community collaboratives when the programs (e.g., school-social service models) are removed from the classroom (Schorr with Schorr, 1989). However, in the business community, there is a growing demand for more accountability and increased influence in school decisionmaking to insure partnerships achieve their desired effects (Face of school-business links changing, 1989). For example, citing the school's inability to solve the dropout problem, the business members of the Boston Compact refused to renew the agreement until the district consented to school governance changes (National Alliance of Business, 1989a; Rothman, 1988). Such episodes may become more common as school-community partnerships become increasingly sophisticated, and more dollars are invested in them.

As in other restructuring approaches, school-community links have their limits. Those who have studied school-business partnerships find that the smaller the district, the less likely they are to have formal partnerships (although informal partnerships may exist) (Mann, 1987). Some caution that school cooperation with private industry and other agencies must be viewed as supplementary and not as a total solution to student problems (Cohen, 1989b). For educators, the challenge is to collaborate with others without diverting energy away from their primary education mission (Rittenmeyer, 1986).

SUMMARY AND CONCLUSIONS

In the early 1980s, state policymakers and educators began a debate about the purposes, effects, and structures of schooling in America. The first phase of this debate resulted in major state initiatives directed at increasing standards for students and teachers (e.g., Wise, 1988; Hawley, 1988). In the second phase, the reform movement progressed beyond its regulatory beginnings to issues that address enduring and fundamental weaknesses in the way schools are structured. If the watchword of the first phase was "excellence," for the second it is "restructuring" (Elmore, 1988).

Interest in school restructuring grows from the conviction that schools must change the way they organize the work of students, teachers, and administrators, if they are to educate all students and meet the increasing expectations of a changing economy. The restructuring movement's aim is to alter the rules, roles, and relationships of students, teachers, administrators, and, in some cases, members of the community, to produce substantially different results from those schooling currently produces (Corbett, 1990). Issues of structure and governance -- such as school-based management, shared decisionmaking, greater teacher autonomy, parental choice of school -- are paramount in this effort. Attempts to rethink the curriculum content, to shift the instructional focus from teaching to helping students learn, and to replace standardized tests with alternative modes of assessment are also important.

No matter what restructuring approach is used, the criterion for success must be the same. Does the restructuring improve student performance and allow students to reach their full potential? In terms of the low achiever, meeting full potential implies narrowing the current gap between high and low-achieving students, eliminating inequalities of learning opportunities due to perceived differences in the low achiever, and developing the low achiever's interest in and cognitive capacity to problem solve and to think critically and creatively. Thus, while restructuring proposals focus on changing the organization and process of schooling, their ultimate purpose is generally stated in terms of improved student outcomes.

The realization that sustaining our current high standard of living will increasingly require a work-force with greater competence and flexibility is a primary motivator of the restructuring movement. Since workers in the future will experience rapid changes in both work technologies and jobs themselves, the ability to think and learn quickly can no longer be limited to top-level management. In his comments to the Compact Institute/Business Leadership Forum, Dennis P. Doyle, a senior research fellow at the Hudson Institute, suggests the Japanese economy has been successful largely because of Japanese mass education -- something Americans have attempted, but not achieved. He says:

> A highlight of the Japanese success story is that nation's goal and ability to bring underachieving students into the ranks of the well-educated, creating a greater pool of talent for business to draw upon...The Japanese are proud to boast they have the best bottom half in the world and they clearly do. (National Business Alliance 1989a, p. 23).

In the past, America has relied on its high birth rates and the best educated segments of the population to carry the the heavy demands of the workplace. It is increasingly apparent, however, that if we are to remain economically productive and successful, America must focus its energy on delivering education to the least among us -- the low achievers in our schools today.

In 1988, approximately 13 percent of all 16 to 24-year-olds, or nearly 4.2 million young adults, were not attending school, and had not completed high school (National Center for Educational Statistics, 1989). While a majority of these dropouts are Anglo-Americans, a disproportionate number are African-Americans or Latinos. For those who stay in school, the average reading proficiency of African-American and Latino 17-year-old students is roughly the same as that of the average 13-year-old Anglo-American (Mullis & Jenkins, 1990). The best predictor of low academic achievement is poverty (Natriello, McDill & Pallas, 1990). Thirty-one percent of the students living in the central cities of metropolitan areas, and 24 percent of the students living in rural areas are from families with incomes below the poverty level (Natriello, McDill & Pallas, 1990). Low socioeconomic status in combination with low academic achievement are the best predictors of premature school leaving.

These trends in achievement gaps are not new; they have been a concern for many years. What is new is that those students whom schools eduate most poorly are increasing at a time when upscaled jobs require more highly skilled workers than in the past. This mismatch between the skill level of the workers and the educational requirements of the job has led to a sense of urgency about the future well-being of our country. Fundamental reform in the way poorly achieving students are educated is seen as the most promising strategy for averting economic catastrophe.

Previous attempts at school reform are

instructive for current restructuring efforts. In the past, teachers have felt more like victims than participants in reform movements. Today's designers of restructuring efforts subscribe to Fullan's (1982) thesis that through active participation in decisionmaking, a bond of shared understanding and common language emerges to sustain innovations and reduce the stress of change. Consistent with these beliefs, restructuring proponents often propose that key decisions about the school's budget, personnel, and curriculum occur at the school site, with substantial participation by the entire staff.

If the school is the current focus of change for low achievers, then culture -- an important dimension of school climate (Tagiuri, 1968) -- is the target (Purkey & Smith, 1985). Currently, the culture of schools and change are antithetical, since change threatens the stability, predictability, and comfort of the culture (Deal, 1985). However, advocates of restructuring argue that needed changes in school culture are possible when teachers (and sometimes parents or community members) authentically participate in decisionmaking. This approach assumes that strategies to change the school culture must come from within the culture itself, often with assistance from outside consultants (Cooper, 1988). Teachers and principals must be involved as willing partners in changing their own organizational culture. Changes in the school culture cannot easily be imposed by those outside the school community.

While educational reformers understand more about change today than 20 years ago, changing a school's culture is no simple process. Policymakers and practitioners know that common goals and core values, high expectations, order and discipline, a sense of community, collegiality, respect, and trust are the necessary elements of a productive school culture. What they do not know is exactly how to combine people, things, and ideas to achieve these desired cultural ends. The difficulties do not pertain to reallocating resources as much as to changing the social system -- a second important school climate dimension -- which has been the same for decades. No standardized formulas are available, since no two schools have cultures and patterns of relationships which are alike in every way.

A key issue for the restructuring movement is which reforms will produce improved outcomes for low achievers, who are disproportionately African-American or Latino, and who are often children of poverty living in inner cities or rural areas. This is difficult to answer since most restructuring approaches are likely to improve student learning by improving some aspect of the school experience, but the link between the restructuring reform and student outcomes is not always clear or explicit. In addition, proponents of each major restructuring approach define the cause of poor performance and workplace problems differently, and, hence, they focus on different parts of the educational system to achieve the solution. As discussed in this book, recommended restructuring approaches include, for example, changes in the school organization, the roles of teachers and administrators, the accountability system, the curriculum content and process, parental involvement and choice of school, and the relationship with social service agencies and businesses. Clearly, this is not an either-or situation, but one which requires a combination of approaches blended together to develop a comprehensive strategy for changing the system. Due to of the multi-faceted needs of the low achiever, anything less than a comprehensive approach will probably not work.

School restructuring is not for those who are fainthearted. It requires a willingness to experiment, and to move from the known to the unknown

(David with Purkey & White, 1987). Those involved in school restructuring find it to be time consuming, labor intensive, and sometimes fraught with conflict (Elmore, 1988). In restructured schools, teachers and administrators must assume new collegial and collaborative roles, and must learn to implement a fundamentally different curriculum. Extensive staff retraining, and the time and opportunity to adopt new operating procedures, are necessary for the success of restructuring efforts.

Also to be successful, school restructuring must come to terms with conflicting perspectives within the restructuring movement. This is especially true for those advocating changes in the organization of school and those espousing changes in the curriculum. One restructuring approach is focused on the schooling process and advocates decentralization; the other is concerned with curriculum content and is characterized by centralization tendencies. For restructuring to fulfill its promise, these divergent trends must be integrated to create productive school climates which will benefit low achievers.

John Locke, the philosopher, wrote that all things excellent are as difficult as they are rare. The challenges facing current educational reformers are, indeed, extremely difficult. It is quite clear that schooling, as it is structured today, does not educate large numbers of our students, especially those who are African-American, Latino, and from low socioeconomic backgrounds. The hope of the restructuring movement is that excellent schools -- those able to close the gap between high and low-achieving students -- will no longer be rare, but commonplace occurrences throughout our country. For this to happen, restructuring proponents must resolve conflicts inherent within the movement, and progress from the discussion stage to the difficult work of implementation.

SAMPLE EDUCATION PROGRAMS

The literature on educational improvement and school restructuring includes programs that positively influence the school climate for low-achieving students. Examples of programs relevant to topics discussed in this document are:

- The Accelerated Schools Program (ASP)
- Creating a New Approach to Learning (Project CANAL)
- Comer's School Development Program (SDP)
- Mastery in Learning Project (MLP)
- Outcome-Driven Development Model (ODDM)
- RE:LEARNING: Coalition of Essential Schools
- Stay in School Program (SSP).

A brief description of each of these programs follows. The overviews are based primarily on written descriptions disseminated by the program developers.

ACCELERATED SCHOOLS PROGRAM (ASP)

AUDIENCE: At-risk students in elementary and middle schools.

DESCRIPTION: The overall goal of the Accelerated Schools Program (ASP) is to raise student achievement by building on the strengths of students, teachers, administrators, parents, and members of the community.

Building on strengths means identifying and making use of potential resources already available in every school: the influence of parents on their children, the insights and instructional skills of teachers, and the creativity of school-based administrators when freed from traditional command-role operating procedures. The strengths of disadvantaged students may be their interest in oral or artistic expression, a capacity to be involved in intrinsically interesting tasks, or an ability to learn to write before mastering beginning reading decoding skills.

ASP features school-based management and shared governance. In this program, the local school site has the authority and responsibility to make basic curriculum and management decisions. The principal, the school faculty, and parents establish a common set of goals. Classroom teachers are encouraged to design their own instruction to meet these school goals in ways appropriate to the teachers' unique perspectives. The curriculum features high expectations and a whole-language approach: using literature for reading instruction, writing and reading across the curriculum, meaningful applications of what is learned, higher-order thinking skills, and problem solving. It is expected that improved instruction will help educationally disadvantaged students to perform at grade level or higher by the time they leave sixth grade.

In contrast to the command role of principals in traditional schools, ASP principals organize initial efforts, coordinate and guide the decisions of teachers, and handle the logistical needs for translating these decisions into reality. District staff members provide information and assistance rather than monitor compliance with district-formulated goals.

EFFECTIVENESS: Accelerated schools throughout the United States have experienced decreased retentions in grade and special education placements. Attendance has improved. Teacher-designed projects in mathematics, language arts, family involvement, and self-esteem are abundant.

No systematic evaluation of the Accelerated Schools Program is currently available. Anecdotal information is used to support the program. Accelerated schools success stories include the following:

Daniel Webster Elementary School, San Francisco, made the greatest gains in language achievement of all 72 elementary schools in the city, and the second greatest gains in mathematics.

Hollibrook Elementary School, Houston, made substantial achievement gains in all subject areas and grade levels, and made documented improvements in teacher, student, and parent attitudes.

Hoover Elementary School, Redwood City, raised standardized mathematics scores from the 10th to the 27th national percentile for sixth graders. Before ASP, 17 parents attended back-to-school night; now, over 450 attended the same event. Parent participation in conferences has increased from 30 percent to 95 percent.

Fairbanks Elementary School, Springfield, made the highest achievement gains of any school in the district.

COST: The estimated typical start-up cost in a school with about 500 students totals approximately $15,000. This amount includes the cost of substitute service to provide released time for teachers -- approximately $5,000 to $10,000 a year. An additional estimated $5,000 per year is needed to pay for consultant services and materials.

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CREATING A NEW APPROACH TO LEARNING (CANAL)

AUDIENCE: Students in racially identifiable elementary and secondary public schools.

DESCRIPTION: Creating a New Approach to Learning (Project CANAL) combines school-based management and specialized staff development to create a positive school climate, improved curriculum and instruction, and meaningful parent involvement. Through a shared decisionmaking process, administrators, teachers, students, and parents develop a sense of ownership and responsibility for the school and its programs.

Beginning in 1989 and continuing for five years, the goal of CANAL is to raise reading and mathematics achievement above grade level for a minimum of 50 percent of the students.

The key activity in Project CANAL is training members of the Core Planning Team, which has the responsibility and authority to make basic program and management decisions for their school through a process of shared governance. The training highlights the effective schools research and the principles of school-based management.

EFFECTIVENESS: The Department of Research, Evaluation, and Planning (DREP) of the Chicago Public Schools is conducting a comprehensive project evaluation. During its initial stages, the evaluation is focusing on the training for school-based management, and on the school improvement planning process directed by the Core Planning Team.

In order to reinforce the climate of local ownership, the evaluation design includes school-site evaluations to be undertaken by individual schools. Team members learn how to interpret and use information generated at the local school level as well as data provided by the DREP. In each school, one member of the Core Planning Team serves as the evaluation leader, and also is the liaison between the school and the DREP.

Preliminary evaluation information has been shared with the Core Planning Teams. Achievement data is available to each school and will be analyzed each project year.

COST: Project CANAL was developed in response to an $83 million settlement agreement between the Chicago Board of Education and the federal government concerning a desegregation plan. The Project places the school district in compliance with the Student Desegregation Plan for the Chicago Public Schools by providing programs that move in the direction of equity of outcomes for students in racially identifiable schools.

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COMER'S SCHOOL DEVELOPMENT PROGRAM (SDP)

AUDIENCE: Poor and low-achieving elementary and secondary students.

DESCRIPTION: The School Development Program (SDP) model is used to plan and manage all activities within a school in a way that promises desirable staff interactions, and, in turn, desirable student learning and behavior. The SDP model is a system-level prevention approach that addresses all aspects of a school's operation, not any particular pre-targeted aspect of a school. It is a process model that allows the school to review problems and opportunities in a no-fault atmosphere. It seeks to develop creative ways of dealing with problems and to implement these ways using collective good judgment.

The program is carried out through regularly scheduled meetings of its three components: the School Planning and Management Team (SPMT), the Mental Health Team (MHT), and the Parent Program. These components provide the structure through which the improvement process takes place.

The School Planning and Management Team is the building-level representative governance and management body. This group is led by the principal and includes members of the MHT and representative teachers and parents. The SPMT establishes policy guidelines, develops systematic school plans, responds to problems (or delegates this responsibility to others), and monitors program activities.

The Mental Health Team is composed of a school social worker, psychologist, special education teacher, counselor, and other appropriate building-level staff. This group is headed by the principal. It works in a diagnostic-prescriptive fashion. It provides on-going consultation to teachers and the SPMT on child development issues.

The Parent Program is the cornerstone for developing a school climate that stimulates the total development of students. Parents are expected to elect representatives to the SPMT, participate in parent-teacher activities, review school plans developed by the SPMT, and support school efforts to assist students in their overall development.

The district office works with individual schools to develop inservice workshops that address the needs identified by the school.

An important program goal is to develop working relationships which encourage youth to take on challenges which would otherwise impede their development. By encouraging a desirable climate, schools provide models of appropriate human behavior that students can identify with and imitate.

EFFECTIVENESS: In the 1980s, the New Haven, Connecticut, schools which participated in the project ranked third and fourth among the 31 elementary schools in the city, ahead of some schools with higher socioeconomic status.

Student attendance in SDP schools ranked second or third among the 31 schools. Serious behavior problems were rare. Teacher attendance and turnover rate improved dramatically. Observers reported a positive social climate among parents, staff, and children.

Currently, SDP is operating successfully in approximately 100 schools throughout the United States.

COST: The cost of SDP depends on the level of resources that already exist in the school. Costs are more likely to be in energy, decisive actions, risk management, and time instead of dollars.

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MASTERY IN LEARNING PROJECT

AUDIENCE: Students K-12 in 27 schools in 19 states, selected to be demographically representative of American schools.

DESCRIPTION: The Mastery in Learning Project (MLP) is based on the assumption that faculty collaboration makes a decisive contribution to the quality of schooling.

In 1985, the initiators of the project collected data from participating schools. They discovered that most teachers and principals accepted mandates for curriculum, instruction, and management from outside the school, with little or no opportunity for faculty participation. Far from welcoming change, faculties felt a responsibility to protect the school from change, because their experience indicated innovations are a mistake.

The response of the Mastery in Learning Project is to help faculties develop a process for tapping into the potential of collegiality, and bringing out the latent talent and leadership within the school. As new leaders emerge, the faculties learn to view leadership as a shared responsibility, based on both competence and formal role.

The main activity of the Mastery In Learning Project is staff development, a three-to-five-year training process that leads the faculty to a sense of ownership of the school program and the internalization of its goals. Faculties learn to ask penetrating and comprehensive questions about the quality of current teaching and learning. They examine their basic assumptions, course content, learning materials, methods of evaluation, and expectations for students and for themselves. With open minds and a spirit of inquiry and optimism, faculties formulate new goals and develop options informed by relevant educational practices and research.

EFFECTIVENESS: Faculties that have completed the training process now view leadership as a shared responsibility based on competence as well as on role. They see themselves as a powerful force for affecting the quality of their school. Most important, they become collegial, problem-solving school communities.

COST: For this five-year project, Mastery in Learning schools require a special budget to pay for substitute teachers, a site-based consultant who commits 20 hours a week to project work, support from regional educational laboratories, and assistance from the project's central office.

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OUTCOME-DRIVEN DEVELOPMENTAL MODEL (ODDM)

AUDIENCE: All K-12 schools and students.

DESCRIPTION: The central idea of the Outcome-Driven Development Model (ODDM) is that all school operations must be driven by the desired student achievement outcomes. If changes are necessary, they must be made with that explicit purpose in mind. ODDM is not a curriculum package or a recommended set of instructional practices or a plan for shared governance. Rather, it is a staff development program that trains teachers and administrators to use self-discipline, logic, and research to plan and carry out changes needed to reach their goals. The actions that an ODDM school takes probably will include making significant changes in school climate, curriculum, instruction, management, and other areas of school operation.

The Johnson City, New York Central School District (JC) provides a model and training resources for schools and districts adopting the ODDM concept.

JC committed itself to a comprehensive restructuring of all areas of school operation in order to produce excellent achievement for all students. The JC staff defined "excellent achievement" not only by high levels on standardized tests but also by the following exit behaviors.

- Students will have high self-esteem both as learners and persons.
- They will be able to function at high cognitive levels, as distinguished from the lower levels measured by standardized tests.

- They will be good problem solvers, communicators, and decisionmakers; will be competent in group processes; and will be accountable for their own behavior.

- They will be self-directed learners.

- They will have concern for others.

JC staff identified 20 areas of school operation, such as school climate, instruction, curriculum design, leadership and management, and the flow of communications. Research-based changes were implemented in all 20 areas in order to link them logically with the desired outcome behaviors.

Schools and clusters of schools that adopt ODDM must commit themselves to six phases of implementation over a period of two years. During this two-year period, a leadership team from each school is trained for a total of 25 days. This team consists of the principal, an instructional leader from the central office, at least three teachers, and, in secondary schools, instructional leaders from each of the major disciplines. The trainers are JC teachers and administrators who work with their counterparts in the adopting schools.

EFFECTIVENESS: Achievement in reading and mathematics for Johnson City students in grades K-8 served as key indicators of overall success. In 1976, before the project began, only 44 percent of all eighth-grade students six months or more above grade level in reading; in math, 56 percent scored at this level. By May 1984, 75 percent of all eighth-grade students scored six months or more above grade level in reading ($p > .001$). In math, 79 percent scored at this level ($p > .001$). These gains in student achievement have persisted. Morale, climate, and staff effectiveness have also improved.

COST: The adopting school or district is responsible for paying travel expenses, honoraria, and the cost of substitute service for the Johnson City staff members who do the required 25 days of training. Very few materials and no special equipment is needed to implement ODDM. The ODDM provides a wide range of training materials at no cost to the adopting school.

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RE:LEARNING: COALITION OF ESSENTIAL SCHOOLS

AUDIENCE: Grade 7-12 students at all levels of academic achievement, in public, parochial, and independent schools in all parts of the country.

DESCRIPTION: RE:LEARNING is a national effort to redesign the total school system. It is grounded in Ted Sizer's nine common principles of the Coalition of Essential Schools. It is based on the belief that if schools are to achieve their primary purpose -- to help all students learn to use their minds well -- actors from all levels of education, from the state house to the school house, must be engaged in a focused and coordinated effort.

RE:LEARNING, as a project or initiative title, represents a partnership between the Education Commission of the States (ECS) and the Coalition of Essential Schools (CES) to help the whole spectrum of educators rethink the purpose of education. Typically, the ECS's responsibility is to work with state-level policymakers, while the CES provides training and technical assistance to school faculties. A school's participation must be endorsed by the state. To date, six states are participating in RE:LEARNING. The Coalition of Essential Schools exists in 50 separate secondary schools.

The process of implementing RE:LEARNING is as important as the product. Faculty at each school must decide how to adapt Sizer's nine principles to the individual school context. These principles are (1) help students use their minds effectively; (2) indepth coverage of essential skills and knowledge; (3) school goals applied to all students; (4) personalized teaching and learning; (5) student as worker, teacher as coach; (6) multi-age grouping and the diploma awarded upon final demonstration of mastery; (7) core values stressing unanxious expectations, trust, and decency; parental collaboration; (8) teachers and administrators perceiving themselves first as generalists, and then as specialists; and (9) administrative and budget targets to include an 80 to one student-teacher ratio, time for collective planning, and competitive salaries.

EFFECTIVENESS: In November 1989, the Coalition of Essential Schools reported that Essential Schools populations in various parts of the country improved in attendance, dropout rates, academic performance, discipline, and pursuit of higher education when compared with similar populations in the same school or in other schools.

COST: Typically, a commitment of $50,000 per school per year is made by the district and/or the state for a five-year period. These funds are for substantial released time for a group of teachers for planning, development, and travel.

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STAY IN SCHOOL PROGRAM (SSP)

AUDIENCE: Urban elementary students of color considered at risk of dropping out of school.

DESCRIPTION: The Stay in School Program (SSP) defines at-risk students as those absent more than 15 days per year, achieving below grade-level in reading and mathematics, and likely to be retained in grade and/or be referred for special education services.

In 1986, the Fordham University Graduate School of Education and Social Services formed a partnership with five New York City public elementary schools aimed at improving absenteeism, achievement in reading and mathematics, self-esteem, and adequacy of home care. The program has involved 100 students and their parents spanning grades one to five. The educational staff provides one-to-one student tutoring with emphasis on the whole language approach, individualized student instruction, and parental workshops. The social service staff involve students and their families in counseling, play therapy, family problem solving and advocacy. Project staff also train teachers and administrators in practices related to at-risk prevention.

A Practice Profile has been developed as a checklist to provide a standardized, systematic, cost-effective way of summarizing program components and requirements. The profile can be adapted for use by other practitioners and evaluators of programs responding to the needs of at-risk student populations.

EFFECTIVENESS: Data are positive and encouraging. In the first three years, overall student absenteeism decreased 60 percent (i.e., from a mean of 41 days in 1985-86 to 25 days at the end of 1989). Evaluators believe that this effect is mainly due to frequent contacts between the program's social services staff and students and their parents.

Upward trends have been noted for educational achievement and self-esteem, although wide variability is evident across sites. One of the most important effects of the program has been increased parental involvement. A majority of the parents have become more aware of and involved in ways to solve their social problems and to address their school-related concerns. Base data about adequacy of home care are being collected.

COST: The project is funded by the New York State Department of Education.

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